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ABSTRACT

This document provides an overview of art education research funded by the Arts and Humanities Program (AHP) from 1965-70. Several dozen research and development projects, selected from among the more than 200 initiated during this period, are analyzed to indicate the wide range of scope and funding, nominal success or failure, distribution among art forms, research strategies, and objectives. The report is presented in six chapters. Chapter I offers a history of art education research and stresses the importance of the federal funding for art education research pursuant to the 1965 Elementary and Secondary Education Act (ESEA). Chapter II discusses AHP's role as administrator of ESEA funds to art education research. Chapter III compares the limited funding of basic research with the more generous funding of proposals aimed toward strengthening the position of art in education. Chapter IV describes activities such as conferences and surveys which were developed to spur research. Chapter V focuses on research into art classroom occurrences and practices. Topics discussed include measurement and testing, teaching methods, art in the curriculum, music in the curriculum, educational laboratory theatre, and curriculum development. The final chapter stresses the need for increased federal funding in art education research. (Author/BC)

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RESEARCH IN ARTS EDUCATION

A Federal Chapter

by Judith Murphy and Lonna Jones

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
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"Inverted Seashell." Cover illustration of a symmetry development by J. Kauffman, design student, Carnegie-Mellon University, 1962–63; William Huff, instructor. Mr. Huff's experiences in teaching symmetry as an element of basic design spurred his 1965 OE-sponsored project, "Uses of Symmetry in Design Education" (see pp. 49–50).

Foreword

Federal support for research in the arts in education was first embodied in the Arts and Humanities Program (AHP) of the U.S. Office of Education. Thanks chiefly to funds made available under title IV of the Elementary and Secondary Education Act of 1965, the AHP was able to mount nearly 200 research and development projects focused on the arts in education, both the visual and the performing arts. Some projects in the humanities, including museums, were also initiated.

Although the AHP projects (funded for the most part between 1965 and 1970) constituted the bulk of all research in arts education undertaken during those years, this is the first time an analysis and summary of this research has been published for distribution to what should be an interested public.

In a sense the content of "Research in Arts Education: A Federal Chapter" might be considered simply a slice of history; and, as such, is worth recording. But this report, I hope, serves a second purpose; that is, it brings together the many lessons to be learned from the studies which otherwise would languish unread or, at best, serve only a few scholars or graduate students. I believe this purpose alone justifies the effort that went into this report. Here the reader will find the fruits of that intensive program to improve the scope and quality of research and development (R. & D.) in a field of education immediately important to the lives of our children and to the life of America.

I am optimistic about the appeal of this report to an audience that goes beyond specialists in the field. For it distills lessons, both positive and negative, that should be of moment not only to arts educators and administrators, to students and researchers, but also to artists of all kinds and to laymen concerned, in their private or public capacity, with the well-being and encouragement of the arts in and out of school. The reader will, I think, take pleasure in the candor and readability of the prose, and find the material organized in a way that gives perspective to a sometimes murky field.

One lesson that emerges is the continued need for R. & D. in arts education, and the need to profit by what we have already learned. This publication should stimulate discussion and thought about what we know and what we have yet to discover.

Judith Murphy and Lonna Jones are well qualified by background and experience to produce this study. Mrs. Murphy, as writer or editor, has dealt with various phases of education since 1960; her particular interest, both professional and personal, is the arts and education through the arts. In 1968, she was coauthor of two widely circulated and influential publications: "The Arts and the Poor" for the Office of Education and "Music in American Society" for the Music Educators National Conference. Since that time she has written "Community Arts and Community Survival" for the American Council for the Arts in Education, and a number of reports for the Educational Facilities Laboratories and the National Endowment for the Arts, including: "The Place of the Arts in New

Towns" and "The Arts in Found Places."

Mrs. Jones is the senior program specialist with the Arts and Humanities Staff. When this publication was undertaken, she and Mrs. Murphy were staff members of Arts/Worth, then a project of the American Council for the Arts in Education. Mrs. Jones has researched and edited reports on a wide variety of subjects, including the arts and the humanities, for the Academy for Educational Development.

Many other people contributed to this publication. The authors wish to thank Allen Sapp and Darragh Park 3d, former colleagues at the American Council for the Arts in Education; Edwin Neumann and William McDonald, former AHP staff members; those AHP staff members who served during the period covered by the report; and the researchers whose work forms its substance and who graciously supplied essential information. The authors mention their particular debt to former AHP staff members Junius Eddy and Harlan Hoffa in the report.

Harold Arberg
Director, Arts and Humanities Staff
October 1976

Contents

	Page
Foreword	iii
Chapter	
1. Research in Arts Education Comes of Age	1
2. The Arts and Humanities Program in Action	5
3. "Crossing One Mystery With Another:" Basic Research	13
4. The "D" in R. & D.	23
Surveys	24
Conferences	25
5. The What and How of Education in the Arts	43
Measurement and Testing	43
Methods	45
Music	45
Art	48
Other Fields	50
What To Teach	52
Art in the Curriculum	52
Music in the Curriculum	53
Other Curriculum Development	59
Educational Laboratory Theatre Evaluated	61
6. Postscript	65
Notes	71
Appendix: The AHP's Projects Listed According to Art Form	73

Chapter 1. Research in Arts Education Comes of Age

Until the 1960's, research in arts education was very much a sometime thing. It had been an underprivileged subset of research in education—itself the target of slings and arrows from all sides, and not without cause. For example: when the Ford Foundation came into big money in the early 1950's and chose education as a prime target, the policymakers quite deliberately turned away from research in its classic sense. They used the foundation's grants for demonstration projects of various kinds or for a favorite of those days, so-called action research. This decision reflected the view of many influential critics: that research in education tended to be narrow, trivial, or esoteric—almost incapable of being translated into actual classroom practice. Thus, with all the problems that beset education, these critics believed that concentration on actual trial-and-error in the classroom was a wiser course.

Educational research shared the low esteem once accorded research in the humanities and social sciences generally—but more so. For education as a field of study was too low on the academic totem pole to rate as a discipline in itself. Schools of education, in the transition from normal schools to teachers colleges to nominal liberal arts colleges, were still ranked as trade schools in the academic hierarchy; and teachers of teachers—especially during the long period of the teacher shortage, which was abruptly reversed in the 1970's—had little time, money, or encouragement to pursue research. These drawbacks particularly applied to research in *arts* education, "arts" meaning almost exclusively art (visual) and music. (Aside from professional training, it is only in the very recent past that education in such arts as theater, dance, and film gained even a toehold in the country's educational system.)

One student of the field believes that arts education research lagged as much as three decades behind such other branches of educational research as cognition and learning theory. Not that there wasn't a lot of work being done—the great bulk of it in master's theses, doctoral dissertations, and faculty research with all the limited scope, preciosity, and redundance the genre implies.*

For an idea of quantity in just one field: a 1965 study by Erwin H. Schneider and Henry L. Cady (see appendix), completed under the U.S. Office of Education's Cooperative Research Program, judged and synthesized what Schneider and Cady called "apparent research studies" in music education from 1930 through 1962. The authors scanned an estimated 9,000 titles; reviewed more than 1,800; and selected fewer than 300 for synthesis and dissemination through their report. (Most of these selections had been completed with little or no outside support and therefore had remained unpublished or unavailable.)

Under the Elementary and Secondary Education Act (ESEA) of 1965 millions of dollars became available for research and development in arts education, manna to a previously barren

* Early in 1974, Xerox University Microfilms published in 37 volumes a list of more than 417,000 doctoral dissertations, from the first three accepted in the United States (Yale, 1861) down to the 30,000-plus accepted in 1973. Yale has lost the text of James Morris Whiton's 1861 thesis but not its title: "Ars longa, brevis vita."

field. It proved an unexpected boon to researchers who had been working down the years with distinction, but generally without acclaim or broad effect—people like Rudolph Arnheim, Bennett Reimer, Charles Spohn, Elliot Eisner, Robert Petzold, Kenneth Beittel, Marilyn Zimmerman, and others—a chance to delve more deeply into promising hypotheses, to test earlier findings, and to apply plausible theories. It also encouraged young scholars to pursue their doctoral dissertations.

The ESEA was in fact a shot in the arm for arts and humanities education in general, which began to receive unprecedented financial support. In part, the happy turn of events seemed the direct result of past deprivation. Since title III of the ESEA tied grants to something new or extra, to something that schools had not been doing, its provisions would naturally benefit a hitherto neglected part of the curriculum. But, in part, the arts (and humanities) benefited because of the groundwork laid by statesmen and civil servants in the first half of the sixties. When the Congress appropriated ESEA money in 1966, key people and an organizational framework in the U.S. Office of Education (OE) were ready. With high-level backing, the Arts and Humanities Program (AHP) of the Office became the center of the action in arts education and, as such, contributed a unique and officially closed, though unfinished, chapter on the how, what, and why of studying the arts.

Although the ESEA was a keystone of President Lyndon B. Johnson's Great Society, it was the "thousand days" of John F. Kennedy's presidency that evoked a new and salubrious climate for the arts in America, including—if sometimes only inferentially—the arts in education. Mr. Kennedy was the first President since Thomas Jefferson to espouse a public policy on the arts and the first President to appoint a special consultant for the arts.

Consultant August Heckscher examined the entire range of governmental policies and programs involving the arts. The summation of his 1963 report on the status of education, training, and research in the arts was incisive: "At present the arts are given a low priority, or are even excluded in most educational and training programs; and basic research information in this field is scarcely pursued at all."[1] As for the U.S. Office of Education, Heckscher noted that the agency "has until recently given little attention to the arts." This recent attention, and minimal it was, had been the creation in 1962 of the Cultural Affairs Branch in the new Division of Library Services and Continuing Education.

One of Mr. Heckscher's observations dealt with a very specific lapse: Federal support of research in arts education. Beginning in 1956, the Office of Education had administered the Cooperative Research Program, in conjunction with colleges and universities. But as Mr. Heckscher reported, "only a handful of the approved projects have been concerned with the arts."

At about this time several persons entered the Federal education scene who had the particular capacity, interest, and drive needed to make the most of the tools available and of the new climate favoring the arts in education. In 1962 President Kennedy named Francis Keppel his Commissioner of Education. Shortly after his confirmation, the new Commissioner appointed Kathryn Bloom Director of the Cultural Affairs Branch, which was renamed the Arts and Humanities Branch. When the Director arrived, the branch boasted only one professional, music-education specialist Harold Arberg who, besides being an educator and musician, was also a veteran civil servant. Because of earlier connections and shared tastes, Keppel often dealt directly with the President, as did Miss Bloom with the Commissioner.

In 1965 two things happened to strengthen the status of the Arts and Humanities Branch and the role of its Director: In one of those governmental shuffles whose significance escapes outsiders, (1) the Branch became the Arts and Humanities Program, and (2) the AHP's Director was appointed Special Advisor to the Commissioner on the Arts and the Humanities.

Commissioner Keppel proved an eloquent and consistent advocate of the arts in education and of the AHP. And other forces were at work to further the new program. A powerful and unlikely one was the President's Science Advisory Committee, an outcome of national shock over Sputnik I. This Committee operated primarily through panels, or subcommittees; the Panel on Educational Research and Development, established in 1961, was chaired by Jerrold R. Zacharias of the Massachusetts Institute of Technology, physicist, music buff, and entrepreneur extraordinary in instructional innovation.

The Panel's 1964 progress report, "Innovation and Experiment in Education," said that its members were concerned with "the lack of balance in Federal assistance to the arts as compared to science" and raised the question of "whether curriculum reform as it has developed in science education could be applied to education in the arts."[2] The Panel promptly turned its attention to music; the Yale Seminar on Music Education was an immediate result.

High-level support for the arts in education continued when Harold Howe II succeeded Keppel as Commissioner. The AHP Director's role as Special Advisor on the Arts and the Humanities was expanded with the formation of the National Council on the Arts and the National Council on the Humanities. The AHP Director attended the Councils' meetings as the Commissioner's representative.

In 1966, an estimated $100 million, most of it under ESEA titles, dealt in some manner with arts education, and the total approximated this amount for each of the 3 succeeding years, slackening off thereafter. Relative to the billions spent on other aspects of education, these were anything but spectacular sums. But they represented extraordinary largess for the arts. A crude measure of *how* extraordinary is to recall that in 1965, the year before the ESEA's funds became available, the amount of Federal funds devoted in any way to arts education was at most $20 million, the bulk of it for the construction of college fine-arts facilities under the Higher Education Facilities Act. The balance, administered by the Office of Education's Bureau of Research, was modest indeed, never exceeding $725,000 before 1966.[3]

Title IV of the ESEA, which was essentially an amendment to the Cooperative Research Act of 1954,

provided funds specifically for "research and related activities in the arts and humanities." Measured by sheer expenditures, title IV support for research in arts education was minor compared to other components of Federal funding for the arts in education. The program exceeded $2 million in only 2 years, fiscal 1966 and 1968, and grants awarded, from the first few in 1965 until termination barely 5 years later, totaled about $11 million.[4] The program's importance, however, belied its relatively low funding. Title IV made possible the first coherent national effort in arts education research; it also provided an incentive for other arts education funding.

Chapter 2. The Arts and Humanities Program in Action

The official business of the Arts and Humanities Program—its legal raison d'être—was the administration of the ESEA title IV funds for research and development in that field. The recollections of former staff members leave little doubt that most of them would have welcomed a more active part in the ferment of the 1960's when Federal aid to education, including the arts, became a booming multibillion-dollar reality. The Director's strategy, however, endorsed by Commissioner Keppel, was to dig in and maintain the existing beachhead, heeding the bureaucratic imperative that power without a specific appropriation is no power at all. So the AHP, with its link to upper officialdom, hewed to its mandate, but construed the mandate as broadly as the law allowed—which was fairly broad. (As early as 1961 legislation authorizing Federal support for educational research had broadened the mandate to cover not only basic and applied research but also demonstration projects and development.)

Title IV made possible a solid, but small, enclave within the Office of Education. The AHP, as the only cohesive arts group within the Federal educational establishment, became a communications center among Government agencies, between Government and arts educators, and in a measure, between these groups and the arts and education world generally. Thus the AHP helped to guide and occasionally instigate far larger outlays under other ESEA titles, and was a catalyst in advancing the arts in education.

The professionals recruited for the Arts and Humanities Program (numbering only seven at its peak) were a lively crew, plowing uncharted seas with something of the élan that marked the Kennedy years or the early days of the New Deal. Despite nominal pigeonholing as specialists—in art, music, theater, dance, and museum education—everybody, by choice as well as design, got into everybody else's act. This departure from standard bureaucratic practice was only the operational complement to programmatic concerns that reached well beyond the administration of research and development funds. Going about their work, the staff members represented the arts in education to other agencies and higher levels of government, and concurrently brought the good news of governmental interest and funding to the field.

In those days it was no simple matter to find qualified men and women who would make good use of the R. & D. money suddenly available and who recognized the full import of the establishment within the Office of Education of a powerful force for arts education—the first since the Office's creation a century earlier. To drum up interest and response, the AHP staff traveled incessantly into the hinterlands—explaining, exhorting, encouraging, and mobilizing a constituency. Meantime, as word got out, droves of interested parties came to Washington to find out how to acquire some of the new Federal money for the arts. By no means were they all arts educators and researchers. Many were professional artists with no entitlement to ESEA funds; but most of the inquirers turned up sooner or later at

the Arts and Humanities Program. The staff members found themselves acting as brokers and counselors to all those who, it turned out, had no qualification nor indeed appetite for educational research in the arts.*

In building up the program's research grants, the AHP's prime concern was to identify key issues in arts education that could have national implications. Staff members stressed the need to mesh proposals with national priorities. The AHP asked itself and applicants these questions: What are the major things we need to know and to apply if the arts are to become more central in education? Where is change most needed—in curriculum, in modes of instruction, in the way teachers are trained?

At first, most arts educators had difficulty adjusting to these terms of reference. In their farflung parishes, they knew little enough about producing good proposals and the process of getting grants, much less about putting their own ideas in a national framework. But the spadework began to pay off, and in that brief period while title IV funds held out and the AHP had high-level support, close to 200 projects were mounted that dealt variously with R. & D. in arts education. A mixed bag, inevitably, but on balance a potent assist to the arts in education. For example: the AHP furnished the seed money for the aesthetic education program of CEMREL, Inc. (the only arts program later to receive major funding from the National Institute of Education); it supported various projects that helped to spur the artists-in-the-schools movement; it backed the Manhattanville Project, which sought to revolutionize music education; it backed programs which helped to introduce theater and dance to the school curriculum; and it did much to prepare the ground for the current efforts to strengthen the arts in general education.

Although these projects hardly typify the corpus of "apparent research literature" in arts education, they can justly be viewed as representative of the best recent research. Mistakes? Yes, to be sure. But mistakes are endemic to any risk-taking enterprise. The arts, and the arts in education, are almost by definition risky. And to the extent possible in Government, the AHP took calculated risks.

A coordinated, well-funded campaign to generate sound research had a lot going for it. It also had to end-run a good many preconceptions, misconceptions, and ideological conflicts that

*For light on AHP history, as well as passim throughout this report, the authors are indebted to the work of Junius Eddy and Harlan Hoffa, both active in the program from the middle to the late sixties. Of particular value were Harlan Hoffa's "An Analysis of Recent Research Conferences in Art Education," published in 1970 by the U.S. Office of Education, and Junius Eddy's two 1970 reports to the Ford Foundation reviewing Federal programs supporting the arts in education.

a degree mark research in general
are acute with respect to the arts
l arts education. The most perva-
e difficulty is the notion that re-
ırch runs counter to the very es-
ıce and spirit of art. A few years
:k, a prominent art educator and re-
ırcher on his return from an ex-
ıded visit to the Orient was quoted
saying: "Not that research won't
ch us anything, but what research
ıches us is not worth knowing."
n the final report to the AHP on
oject Zero in 1972, Prof. Nelson
odman of Harvard and his as-
ciates commented on the an-
gonism to efforts like theirs:

If such research were carried out, the arts
ould be destroyed" is a characteristic com-
ent. Many are convinced that everything re-
ted to the arts is by its very nature idiosyn-
ratic; and that any analysis, any investigation
f education—even education itself—is an-
thetical to the arts.[1]

At the opposite extreme are those
thusiasts who, in their eagerness to
ng arts education research into the
ainstream, have gone overboard for
e latest "scientific" techniques,
npirical instruments, and quanti-
ation—"the methods game," in the
rds of Marylou Kuhn of Florida State
iversity, "developed in art educa-
n in the 1950's and borrowed from
ccesses in other disciplines."[2] The
ectrum of attitudes includes many
riations between these extremes.

And Speaking of Research . . .

Only artists should do research.

—Robert Willson

The government should fund people, not projects.

—W. Lambert Brittain

Teachers should do research.

—Alice Baumgarner

When research gets away from concrete examples you have nothing but vacuous generalizations.

—David Ecker

Most research poses questions, doesn't answer them.

—John A. Michael

Research is artificial—controlled experiments by their nature falsify reality.

—Bennett Reimer

Research died because education isolated itself.

—Alexander Ringer

We are surrounded by tests and testers; they multiply like flies, they test each other, they tickle each others' ears with words like "cognitive" and "socio-cultural" and "multiple linear regression analysis" and "observed criterion category of musical performance."

—E. Eugene Helm

The federal government pays an awful lot for flailing around in research. Perhaps federal dollars should be invested in long-term support of a person to avoid all that flailing.

—George Hardiman

There is no reason why research can't be multi-dimensional; some empirical; some humanistic. We limit ourselves in research by asking only those questions which can be answered by statistics.

—Ronald Silverman

One of the best things about government-sponsored research is that it puts people in touch with others who have similar ideas and interests.

—Marilyn Pflederer Zimmerman

In many cases researchers are more interested in getting their findings to other researchers for further study than they are in getting the findings into application in the classroom.

—Austin Andrews

If [research] has any influence on education it will be to call attention to "problem-finding," which has hitherto been neglected. As Einstein said regarding creative science, and the same thing holds for art, "The formulation of a problem is often more important than its solution. . . ."

—J. W. Getzels

7

Common to most of these diverse positions, however, is the familiar plaint that says: "The trouble with research in arts education is that the true results—i.e., the net or ultimate effect of this or that approach or theory or practice—cannot be determined for years, if ever." And so study after study qualifies its findings by such demurrers as "it's too soon to tell" and the frequent corollary that further studies, building on the one under consideration, are required to justify firm conclusions. Trendiness is another familiar hazard. Then there is the difficulty from which educational research in general suffers—that findings, however potentially valuable, seldom go through the rigorous developmental process required if they are to make sense in the classroom.

The Arts and Humanities Program and its immediate predecessors tried to surmount these obstacles in various ways. One was the broad interpretation of "research" and of "development." More than in the physical sciences, the line between "basic" and "applied" research is often indeterminate; a given piece of work might plausibly fall into one category or the other or both. One man's "research" study might well be another man's "evaluation" or "assessment." Indeed, there is so much controversy among researchers as to what constitutes "true" or "good" research that judgments as to methodology—e.g., on "humanistic" vs. "scientific" methods—frequently becloud the question as to whether a given study rates the designation "research" at all. (It is possible that the AHP people, consciously or not, capitalized on these murky lines of demarcation. As activists, more concerned with demonstrating the power of the arts than with scholarly probes, they naturally tended to favor—and to invite—projects that broke out of the ivory towers of "pure" research.) In any event, there is little point in striving to put the AHP projects into hard-and-fast pigeonholes.

This analysis, then, has no delusion of finding categories that will command a consensus among arts-education specialists, much less general agreement; the directors of the specific projects discussed might be the first to take exception. Nonetheless, since clarity requires some kind of simple framework, the AHP projects have been grouped in a few broad categories that convey the relative weight the Federal program assigned to the main lines of endeavor, and also the program's shifting emphasis over time. The figures express order of magnitude, not precise distinctions.

Of almost 200 projects sponsored during the 1960's, perhaps 15 to 20 percent can be construed as basic re-

earch, defined here loosely as the urch for new knowledge or better erimental confirmation of earlier findgs. (Purists defining "pure" research ould doubtless cut the figure harply.) About 35 percent appear to elong under the even looser, and omewhat arbitrary, heading of "delopmental" activities. Nearly all the emaining projects—about half—dealt ith what the AHP called "curriculum evelopment," or, to use a term comensurate with the others, what could airly be called applied research.

Many projects, of course, straddled hese boundaries. A "curriculum delopment" project as often as not had s "research component" (if only to onform with legislative intent). A mall number of the projects do not eally fit into any of these major ategories, notably many of those conerned with humanities education, ome of the museum-education rojects, and the few concentrating on eacher training (which was, however, ften an element in multifaceted rojects).

Measured by dollar outlay, the ratios how greater discrepancies. Out of a otal of some $11 million spent und r itle IV and its antecedent legislation, pproximately $2.1 million (20 perent) went for basic research, and bout $1.6 million (15 percent) for delopment. The bulk of funding—a little over $7 million, or 65 percent—was spent on applied research in curriculum and related matters.

The AHP projects lend themselves to various other crosscuts: level of schooling concerned, for instance, or particular kind of student. The most obvious is grouping by discipline (or disciplines). The appendix, which gives this breakdown, shows certain oddities that merit a few words of explanation. Although music education and education in the visual arts between them account for about three-fifths of all the projects, the funding for the 60-plus art projects came to just about $1.7 million, or slightly more than one-sixth of the total outlay; whereas music with about the same number of projects topped all other categories with over $3 million. Some of the music-education projects were on a grand scale, with funding up in the hundreds of thousands of dollars, whereas only one project in the visual arts exceeded $100,000 in funding. The disparity is understandable enough on several counts. Music educators had been much longer organized than art educators, their membership in professional organizations greatly outnumbered that of the art educators, and they had a somewhat more solid if less stylish tradition of university research.* Also, as noted previously, the first and for some time the only professional in the AHP and its forerunners was a music man himself.

While it is literally true that the AHP's grants ignored no major art form, there was scant attention to such "newer" media as film, photography, or tape. It is not surprising to find so little attention to architecture (which hardly figures in general education) or to such late starters as dance. It is surprising, on the other hand, to find theater education, with a mere 19 projects, running second only to music education in its more than $2.5 million funding, and humanities education with 18 projects funded at more than $1 million. The theater figure is quickly explained: exclude the extraordinary Educational Laboratory Theatre program, and the total drops to about $245,000. For diverse reasons, the humanities were a minor aspect of the Arts and Humanities Program and partook little of that program's overall philosophy and procedure. The projects gave almost no attention, for instance, to encouraging the active involvement

*One critic wrote in the mid-sixties that research in art education was more sophisticated than research in music education. The issue is debatable, and perhaps irrelevant to people wholly convinced of the value of the arts to education and to life. Nonetheless, preaching to the converted presents problems; and some of the converted themselves recognize that the quality and force of research counts. Apparently the contrast noted in the midsixties has diminished. At least music-education research has attained greater sophistication than it once had, according to competent critics. By and large, however, the contrast with research in art education still holds with respect to subject matter and general approach. Art educators tend to be more concerned with the nature of art, with aesthetics; the music educators with such pragmatic problems as teaching methods.

of students in literature—in creating their own poetry or prose, or in relating such writing to the other arts. Two major scholarly publications accounted for humanities' relatively big funding.

As for the category "aesthetic education," there is still little consensus on its precise meaning. It is generally used to denote a movement to *combine* the arts in a curriculum that would go beyond the traditional school emphasis on musical performance, say, or the production of art objects, and that, by "finding the elusive thread that links the arts in some manner" (to quote Richard Colwell), would help students become aesthetically literate and discriminating. In this rather loose sense, the synonyms for this category are "interdisciplinary" or "integrated" or "related" arts.

To some distinguished warriors of arts education the movement is trendy, with shallow roots. Moreover, the term is so vague that it encompasses diverse manifestations in curriculum and research. The 1971 publication "Arts and Humanities Program: Reports on Research Projects" puts a baker's dozen of the projects under the heading "Aesthetic Education."[3] Examination reveals, however, that perhaps no more than four actually dealt with efforts to combine or relate the arts in an aesthetic whole, or to probe the problems and promise—philosophical and psychological—of aesthetics. Rather the classification became a kind of catchall for those projects that dealt with more than one art form or included "aesthetic" or "aesthetics" in their titles.

More than a third of all the AHP grants were for $10,000 or less.* The amounts ranged from under $2,000 to $2.3 million for the Educational Laboratory Theatre program, with the median about $30,000. Needless to say, the price tag is no greater guarantee of value in the research world than it is in the supermarket or the car salesroom. Some of the costliest projects yielded a meager return, whereas some of the modest $10,000 or under grants gave more than their money's worth.

The great majority were concerned with schools rather than higher education, and were fairly evenly divided between elementary and secondary education (some dealing with the full K-12 range). This concentration, however, obscures the indirect but actual support that title IV money gave to higher education inasmuch as most of the scholars receiving grants were college or university faculty. A small number of projects dealt exclusively with *profes-*

*Excluded from this review is the so-called regional research program. This provided for projects costing no more than $10,000 and running no longer than 18 months; they were administered through the regional ofices of HEW. An addendum to the 1971 AHP list of projects reports 120 grants made by the regional offices during 1967-1970 for arts education projects.

sional education rather than the arts in general education. A score or so addressed themselves, wholly or in part, to special subgroups of students: the markedly talented, for instance, as well as the poor, the minorities, the handicapped, the retarded, and the sick.

Aside from museum education and the lab theater, very few projects looked at arts education outside the formal educational establishment. And this despite the AHP's avowed concern with "optimum utilization of informal educational programs such as those offered by community art, music, theater, and dance groups and education programs conducted by museums, cultural centers, and arts councils." [4] The reason may well have been a paucity of solid proposals from or about such groups, and this in turn may have reflected the newness of so many community-arts groups and their tenuous hold on grantsmanship.

This chapter has presented various vantage points from which to view the AHP's projects. It has seemed most useful to strike a compromise among the possible taxonomies and to deal, selectively, with the projects under the broadly interpreted rubrics of basic research, so-called developmental activities, and applied research, where the predominant emphasis was curriculum development.

Chapter 3. "Crossing One Mystery With Another:" Basic Research

The chief focus of basic research undertaken through the Arts and Humanities Program was "perceptual learning"—i.e., the nature, function, and results of what human beings learn through their senses, especially their eyes and ears, and such corollaries as how perception relates to age, say, or gender or modes of instruction. Practically all the 30 or 40 grants of this kind had to do with music or visual arts education—none with theater, only one with dance and body movement, and 3 with "aesthetic education."

The Arts and Humanities Program had good reason to limit its basic-research funding, if the major goal of the program's administrators was to propel the arts into the center of education and to induce corrective and exemplary action as quickly as possible. It would appear, nonetheless, that some of the AHP's most widely admired grants went to scholars for research that could not be expected to benefit the teacher or student of the arts for a long time, and then only after many intervening steps.

Thus, two of the biggest projects in the visual arts fall into this broad category. One (for $46,000) was Rudolf Arnheim's. His previous work in the psychology of art—notably his classic "Art and Visual Perception," published in 1954—had brought him preeminence in this field.[1] Project 6-1741, "A Study of Visual Factors in Concept Formation," was essentially a continuation of this seminal study, which applied Gestalt psychology to "the processes of creating or experiencing art."*

As Arnheim wrote in the introduction to his 1954 book, Gestalt psychology from the start has shown a kinship to art, and the writings of its leading proponents are pervaded by it. "Here and there in these writings the arts are explicitly mentioned, but what counts more is that the spirit underlying the reasoning of these men makes the artist feel at home." (Much the same point might be made about the radical school reformers of the present day.) The immediate result of the grant to Arnheim was a brief report that undermined the historical fallacy, reflected in modern educational practice, of treating visual perception and thinking as two distinct functions, whereas the two are inseparable: thinking requires imagery, perception depends on cognitive mechanisms. The real outcome of the grant was the book "Visual Thinking," published in 1969, an extension of Arnheim's earlier work and another landmark in the effort to probe and demonstrate "the collaboration of perceiving and thinking in cognition."[2]

As reviewers have noted, Arnheim's argument is tightly woven and richly allusive. But his style is so luminous and his *persona* so ingratiating that "Visual Thinking," like its predecessors, is almost as good to read as Whitehead. Arnheim summed up the chief point of his work with deceptive simplicity: "that only because perception gathers types of things, that is, concepts, can perceptual material be

*A sidelight on the pitfalls of taxonomy. Though in the AHP lexicon this project is basic research par excellence, Arnheim introduced his final report as "the outcome of a piece of 'developmental' research, designed to perform a seeding function." In his view the value of "Visual Thinking" consisted, at best, "in the clarification of what will have to be done in the future—a layout of a general plan for subjects to be included in future, more particular research."

used for thought; and inversely, that unless the stuff of the senses remains present the mind has nothing to think with."

Unemployment of the senses

The arts are neglected because they are based on perception, and perception is disdained because it is not assumed to involve thought. In fact, educators and administrators cannot justify giving the arts an important position in the curriculum unless they understand that the arts are the most powerful means of strengthening the perceptual component without which productive thinking is impossible in any field of endeavor. The neglect of the arts is only the most tangible symptom of the widespread unemployment of the senses in every field of academic study. . . . Once we understand in theory, we might try to heal in practice the unwholesome split which cripples the training of reasoning power.[3]

Rudolf Arnheim

The Arnheim project illustrates two other germane points. One is the old chestnut about the inevitable hiatus between scholarly investigation and the requirements of the practicing teacher or administrator. True, "Visual Thinking" is no how-to manual for the art educator or supervisor; it does not provide proponents of the arts in education with telling, incontrovertible examples from "real classroom situations" of the power and efficacy of art in the development of mind and spirit. It is not a curriculum guide. But any educator who took the time to read Arnheim would find a powerhouse of validated argument to help him combat "the traditional exclusion of the fine arts from the liberal arts." The author—unlike, say, Herbert Read—makes no claim for the *exclusive* power of the arts, nor does he indulge in the defensive tactic, which so many lesser researchers have pursued, of stressing the role of the arts in enhancing other kinds of learning (the paint-a-picture-and-read-a-book syndrome). His position, rather, rests on the symbiosis or holism of the mind and the senses, of the arts and overall understanding.

The second lesson illustrated by this project derives from the plain and freely acknowledged fact that the AHP, like most grant-giving institutions, awarded some grants not so much to further a particular programmatic goal as to let an established or promising talent get on with his work. Sometimes, to be sure, this policy achieved little more; examples among the AHP projects abound. But occasionally the policy justified itself, if seldom with such tangible triumph as "Visual Thinking." Professor Arnheim is characteristically open and explicit on the subject: "For me the grant was essential. Absolutely vital. Otherwise 'Visual Thinking' would never have been written, and what my life and my life's work would have been without that opportunity at that time is more than I can picture in my mind." For the

2 years that the AHP set him free for research, he recently said of the staff: "The Lord bless them all."

Another sizable project in basic research in the visual arts followed a quite different plot line, with its own and somewhat special kind of productive results. Two grants totaling $87,000 were made to Kenneth R. Beittel, of Pennsylvania State University, to determine the effect of selected psychological concepts (called by the researcher "self-reflective training") on the capacity for creative work in art. Beittel is regarded as one of the finest researchers in art education. Aside from this distinction and their common dedication to art, he differs from Rudolf Arnheim in almost every respect, some superficial, some not. To begin with he is at the heart of the art-education establishment: Most research in arts education has been produced by big State universities—e.g., Penn State, Ohio State, Illinois, Indiana, and Iowa—and not by private institutions like Sarah Lawrence and Harvard, where Arnheim successively taught. Beittel has worked primarily with art educators or about-to-be educators, rather than the spectrum of educators, artists, and psychologists who people Arnheim's world. His usual prose style, quite aside from the technicalities of research lingo, is nearly as idiosyncratic and impenetrable as, say, Thorstein Veblen's or F. S. C. Northrop's.

But the greatest difference lies in Beittel's initial mode of attack: deliberately limited and empirical, as against broad and philosophical. It is difficult to sum up both briefly and comprehensibly the goals and findings of Beittel's two related projects. In broadest terms, they constituted an investigation of the strategies a student might use in tackling a drawing problem, and the effect of varying conditions upon these strategies and their results. The transcendent goal was to develop a sound and usable learning theory in art.

In a series of experiments (which in turn built on his earlier work under National Science Foundation grants), Beittel used an intricate procedure (e.g., a hidden camera recording time-lapse photographs of each student's drawings). Experts judged the results as to their "spontaneity, divergency, and aesthetic quality." Some students worked from a still life, others from their imaginations. Some worked with direct or indirect mediation from an instructor, others entirely on their own. In setting up the conditions of his experiment, Beittel drew selected findings not only from psychology, especially cognitive theory, but also such disciplines as linguistics. He concluded that while certain artistic qualities were associated with a given strategy, "the strategies should not be regarded as bipolar." But whereas the spontaneous strategy tended to produce "spatial continuity," for instance, and the divergent strategy "segmented form and space," the judges discerned little change in aesthetic quality throughout the course of the extensive experiments.

In recommending approval of the second of Beittel's AHP proposals, reviewers stressed the unique nature of his line of research, the researcher's skill, integrity, and "filing-cabinet mind," as well as the lack of any presumption that the work would "provide answers to immediate classroom or studio problems." The eventual educational significance of the Beittel work was assumed. For Beittel, according to his final report, the experiments (in classic fashion) served primarily to dispute various preconceptions about art and the practice of art: "the taboo," for instance, "on direct style instruction, and the romantic mystique on style supporting this taboo"; Monet's famous injunction to young artists to draw continuously, "with its hidden assumption that this practice and repetition will be the source for 'learning to learn.'" The experiments also served to encourage the invasion of a "still more highly tabooed area—symbol-making, and the 'extra-art' influences

thought to partially determine aesthetic and creative differences in drawing."

Dr. Beittel's concluding lines, like the sun breaking through an Irish mist, compensate the reader for what has gone before: "There is, to be sure, much mystery remaining in the study of art strategy, even though it has shown itself to be highly amenable to inquiry and influence. But there is nothing like crossing one mystery (of which a little is known) with another (of which nothing is known)."

As it happens, the Beittel forays into this compounded mystery have opened paths for several generations of graduate students, some of them funded by the AHP. What stands out in the Beittel story, however, is the palpable—and frankly avowed—change that the research made in the researcher, as several books and numerous articles in the late sixties and early seventies bear witness.

In his own way, Beittel personifies shifting approaches to research in art, and by and large *arts*, education in the past few decades. In the fifties researchers were striving for improved quality and respectability. This movement had two related aspects. One was substantive—the effort to relate purpose and validity as closely as possible to psychology and other disciplines in the social and behavioral sciences. The other was procedural—the effort to emulate the technical apparatus of empirical research by mastering statistics and the other arcana of "hard" sciences. In the age of Sputnik, the strategy was if-you-can't-lick-'em-join-'em. By the 1970's however, there were signs that arts research had come sharply about if not full circle. As Edward Mattil has said of research in the visual arts, including his own: "Some of us are going back to crawling so our bones and muscles will be ready for walking."

This does not mean that the "scientific" work of the preceding years was all or even predominantly mistaken, wasteful, or discreditable. If nothing more, it served to train scores of young and not-so-young scholars in the rigors of valid experimental method. Beyond that it appears to have helped arts educators to formulate a clearer scale of research values and goals in their field, to weed out the important from the trivial, and to recognize the limits—as well as the appropriate applications—of quantification in the arts.

There is a good case, then, for the proposition that the grants to Beittel, coming as he has said at a critical time in his career, were a sound investment in the education of Kenneth R. Beittel, an effect multiplied by his high repute and his influence on educators and education in the visual arts. Reviewing

one of Beittel's books, Hilda Lewis observed that the reader accompanies the author on a journey "from cognitive theory through the drawing experiment to humanism" and she delineated its controversial quality: "Those who are committed to nomothetic research, experimental control, replicability, and related *desiderata* of traditional research are likely to define Beittel's new view as outside the boundaries of scientific inquiry."[4] Beittel's own summing up of the impact of the research on the researcher is dramatic:

> I part now from my earlier verificationist, more narrowly empirical self to confront it with a more human and phenomenal self. I can no longer vacillate between the two. The one cannot do what the other can, not just "not yet," as strict empiricists put it, but never. I set out to do a research and ended by participating in a sacrament.[5]

To laymen, artists, teachers, administrators, or "strict empiricists" this self-characterization of the principal investigator in projects 5–1361 and 5–1373 may conjure up not drama but bathos. So be it is perhaps Beittel's attitude on the evidence of his increasingly prolific writing and speaking in recent years. His openness about himself, his willingness to say "I" and to reveal his own growth and change, only suit the style to the message, which in essence is the need he perceives for art education and research to center around the individual. In keeping with such a realignment, it naturally follows that Beittel makes no exclusive claims for his present point of view but would let a thousand research strategies bloom. "I have no desire to talk down any other approach, nor need I feel I have forever turned from more traditional inquiries," he has written.[6] And the operative word in the title of his latest book, "Alternatives for Art Education Research," makes the point for eclecticism.[7]

The work Beittel and his students now pursue in his drawing laboratory can be broadly characterized as "humanistic," though this broad term fails to convey the researcher's distinctive and painstaking case-study methods. Beittel deplores the arbitrary contradiction some see between "humanistic" and "scientific" methods. To him the work he is now doing is quite scientific; it is not, however, "mechanistic," as was his earlier work. To him the most basic of basic research, which the gung-ho enthusiasm of the sixties for the cognitive and behavioral ignored or minimized, depends on old-fashioned (or newly fashionable) observation and description, probing, reflection, synthesis—even that scientifically disreputable pastime *philosophizing*.

Besides Arnheim and Beittel, fewer than a dozen other investigators in the visual arts pursued the AHP projects classified here as basic research under a generous definition of the term. A number of them, especially in the early years, exemplified—like Beittel's projects—the interest in relating children's art work (or "aesthetic judgment") to cognitive theory or development, or in devising objective measures for assessing aesthetic response. "Creativity" became a popular but seldom fertile row to hoe, with scattered efforts to confirm or, if it so turned out, refute *empirically* such giants of the art-education canon as Viktor Lowenfeld and Herbert Read. As one of these quondam researchers has said in explaining her disaffection with creativity research: "You can go so far in it and then you tread on quicksand." A statistical footnote on how big "creativity" was in the midsixties: According to a 1967 issue of the *Journal of Creative Behavior*, about 1,250 bibliographic entries in the preceding 18 months equaled in sheer bulk the research of 5 years before that, and balanced the work of the preceding century.[8] It was pretty much the *in* topic for doctoral dissertations.

Other researchers, using different methods to build on cognitive theory, tried to establish *transfer*—i.e., to validate the appealing hypothesis that greater competence in visual perception, achieved through instruction, would prove out as well in greater all-

around academic achievement. Several projects with this end in view, one of them very generously funded, proved no such thing; they didn't disprove it either, since plausible allowances could be made for defects, fortuitous or otherwise, in project design, execution, or breadth.

Even if one stretches the category several points, relatively few of the AHP's projects in music education can be classified as basic research—no more than half a dozen of the total 64 music grants. Most of these investigated perception of musical sounds. For example, Robert Petzold—an engaging panjandrum among music educators and editor of the *Journal of Research in Music Education*—headed several sequential projects from 1959 to the midsixties. He explored the different ways that young children—both "normal" and musically gifted—perceive musical symbols to find useful data for improving the mode and sequence of teaching music in the early grades. In the third and final project, he studied the auditory perception of children in the first six grades over a 5-year period.

Dr. Petzold learned from his findings that children reach a plateau at the third grade and "cannot continue toward developing a minimal level of musical growth and understanding unless the school is able to provide both time and opportunities for such growth, as well as qualified teachers."[9] It was Petzold's conclusion that few schools provide adequate time and opportunities for average or extra-talented children to grow musically, including those schools that have gifted music teachers. He sees small rift in the gloom. "In the average elementary school," Dr. Petzold said recently, "the amount of time each child spends with a music specialist comes to about thirty-six hours a year—or about a quarter or less of the time scheduled for each of the 'regular' subjects."

The Petzold studies were singled out among thousands of recent music-education projects in the Schneider-Cady survey and in another AHP-supported survey—Richard Colwell's 1969 "Critique of Research Studies in Music Education" (see appendix). Frederick Swanson's review in the Colwell compilation points to both the quality and the limitations of Petzold's work, which—since Petzold is an outstanding scholar in his field—could be extrapolated to the whole field of research in music education. Swanson, reacting only to the first of Petzold's AHP projects, "The Perception of Music Symbols in Music Reading by Normal Children and by Children Gifted Musically," observed its "very restricted area" (sight reading) and "correspondingly limited" conclu-

sions. After mentioning certain shortcomings "not because of faulty technique but inherent in the nature of the study," Swanson devotes the bulk of his review to extolling the "provocative avenues of exploration" that Petzold's first project opens up and the "techniques usable in further studies." Three major avenues are: the place of music reading in a required curriculum; the importance of motivation; and whether or not there is "a best or preferred method for teaching note-reading."

Another effort to probe the basics of music education was Marilyn Pflederer Zimmerman's study of how children conceptually organize musical sounds. One of two AHP-supported "concept" studies in music, the Zimmerman project shares with Kenneth Beittel's drawing studies the urge of arts researchers in the early and midsixties to correlate education in the arts with cognitive theory. But, unlike Beittel, Dr. Zimmerman underwent no transformation of her own research philosophy in the process, at least not on the record.

The psychological principle behind her series of five experiments was one of the major steps of Jean Piaget's schema of a child's cognitive development: the grasp of the principle of conservation. A familiar example is the child's ability at a certain stage of growth to recognize that a given amount of water, say, or clay remains the same even when it is divided into smaller units or its appearance otherwise changed. To quote Dr. Zimmerman:

> Inherent in the Piagetian idea of conservation is the very real relationship that exists between perception and concept formation. . . . The interdependence of percept and concept is especially evident in musical learning. It seems almost a truism to say that musical learning begins with perception of music. From our various perceptions of music, we develop musical concepts that permit us to think about what we have heard and that provide us with a basis for communicating our musical ideas through performance and at the symbolic level of notation.[10]

How Children Conceptually Organize Musical Sounds

Final Report, Zimmerman, Marilyn Pflederer; Sechrest, Lee
Northwestern University, Evanston, Ill.

/abstraction levels/ cognitive development/ *cognitive processes/ *concept formation/ *conservation (concept)/ elementary school students/ intellectual development/ learning processes/ mental development/ music/ *music education/ music techniques/ patterned responses/ *research/ retention/ secondary school students/ vocabulary

A series of five experiments was designed and administered to 679 elementary and junior high school students over a 2-year period to test the relevance of Jean Piaget's concept of conservation to musical learning. Musical tasks consisting of stimulus patterns and systematic variations of these patterns were designed for each experiment, and experimental settings for individual experiments were varied. Results indicated:

(1) Task performance progressively improved from younger to older age groups;
(2) Improvement in conservation of tonal patterns preceded improvement in conservation of rhythm patterns;
(3) Training to enhance conservation was most effective at ages 5 and 7;
(4) Change of mode, contour, and rhythm pattern interfered with conservation more than change of instrument, tempo, or the addition of harmony;
(5) A plateau in music conservation skills was reached in the fourth grade;
(6) Patterns in minor mode produced better rhythm conservation than major or atonal patterns;
(7) The initial teaching of musical structure may best be pursued through the study of familiar music. The presence of visuals in one experiment made a significant difference in the results.

The conclusions emphasize the importance of an early acquaintance with basic music structure and vocabulary and the need for instruction to decenter perception from the biasing aspects of music by a consideration of musical variations.

A familiar motif prefaces the researcher's conclusions: "Although the data are not conclusive enough for us to make any definite recommendations about music education, our results do show that even young children are capable of comprehending fairly complex musical concepts. Teachers may be doing students a disservice by teaching them music too slowly. . . . It is also important that music education involve more active participation and experimentation by the student. . . . Children should have the opportunity to create and experiment with music in a very active way, so that by their own creation and experimentation, they may learn that such aspects of music as tonal pattern, rhythm, tempo, and intervals are equally as plastic but immutable as clay." [11]

The box on page 19 reproduces the ERIC* summary of this project and its findings, leading off with the array of cross references that preface all such summaries—in this case ranging from "abstraction levels" to "vocabulary." The Zimmerman project, as the roster of seven major results indicate, suggests interesting analogies to projects this chapter touched on earlier. Besides the Beittel-like effort to probe the relation of cognitive theory to education in the arts, the unequivocal emphasis on the importance of starting early with the "right" kind of musical training parallels Petzold's conclusions. (These two entirely different sets of experiments even coincided in locating a learning "plateau" at about grades three or four.) Finally, despite the difference in art forms, modes of procedure, and research goals, Marilyn Zimmerman has bulwarked Arnheim's basic thesis: the vital union of perception and thought.

One of the few AHP projects concerned with basic research in aesthetic education has been Harvard's Project Zero. The final report to AHP, "Basic Abilities Required for Understanding and Creation in the Arts," was built on seven so-called technical reports, under grants from various sources. These reports deal with such diverse topics as the arts in alternative schools, the theory of symbols, types of musical reference, and the lecture-performance as an instrument for audience education. The final report was final only in the sense that it completed the research pursuant to the OE grant. The project itself has continued with funds from the National Science Foundation (which, early and late, acted the unexpected role of a catalyst

*ERIC (which stands for Educational Resources Information Center) is the chief and sometimes the only vehicle for obtaining complete reports of research in education, including arts education. The microfiche version is cheap but inconvenient to use, the hard copy version is handy but expensive. For example in June 1976, the Zimmerman report in microfiche was only 83 cents; the hard copy version was $11.37.

in arts education), the National Institute of Education, and others.

Project Zero researchers—founder Nelson Goodman, David Perkins, Howard Gardner, and their associates—are wary of extravagant claims for their work. "We are not looking for mathematical formulas for nurturing abilities in the arts; rather we are studying the various possible ways that education may be made more helpful—or at least less damaging—to such abilities."

Project Zero—a title chosen because the project directors said that they began "with little more than a conviction of the task and some tentative notions as to where to direct our attention first"—has spread its net wide and

Harvard's Project Zero Explains Itself [13]

Project Zero investigates human symbolic functioning, with special emphasis on creation and comprehension in the arts. The Project has sought a membership and insights from the diverse disciplines of philosophy, developmental and cognitive psychology, mathematics, education, as well as the arts themselves. A mix of focussed and broader inquiry characterizes the Project's work.

During its initial phase, the Project undertook an analysis of central concepts in the study and practice of the arts. During a second phase, the focus shifted to basic psychological investigations of human symbolic capacities in the arts and elsewhere. During the present phase, the empirical and theoretical research interests are continuing, and the Project has also become involved in a number of ongoing educational programs. In addition, the Project functions as a resource center, disseminating information and advice on a range of problems concerning the arts, symbolization, and cognition. Findings are made public through books and monographs, articles in scholarly journals and national periodicals, and regular seminars conducted during the academic year. Members of the original Project meet annually to review progress on topics of mutual interest. Visiting scholars often work with the Project for a semester or a year. Inquiries and associations with the Project's activities are welcome.

The history of Project Zero reflects a range of convictions concerning the arts, human behavior generally, and research. Where some see the creation and comprehension of art as processes standing apart from other modes of knowing and acting, the present inquiry has focussed on the common foundation of symbolic capacities and the many parallels of process and strategy which link the arts to practice in the sciences and elsewhere. Again, while educational research has typically focussed on the school-age child and highlighted the use of standard experimental paradigms, Project research has sought a wider range of subjects and extended its methods to include clinical, process-tracing, case study, and longitudinal paradigms. These commitments work toward sharpening both the contrasts and commonalities among the various arts and sciences and defining the various specific and general skills and abilities which serve their practice.

Among the current research interests of the Project are the following topics: children's conceptions of the arts, the development of sensitivity to style, the development of metaphoric thought, children's conceptions of reality and fantasy, problem-solving in the arts and sciences, the training of "versatile skills" which cut across diverse domains, the development of symbolic capacities in different media in young children, the breakdown of symbolic skills under conditions of brain damage, sensitivity to narrative structure, the nature of errors in thinking, process-tracing studies of artists and poets at work, problems attendant on encountering novelty in the arts and elsewhere, the nature of critical disagreement and critical dialogues in the arts and elsewhere, the role of rhythm in perception and motor control, and pattern recognition processes in the reading of text and pictures.

The Project's practical involvement in education commenced by sponsoring a number of lecture-performances in which well-known artists furnished a "behind-the-scenes" look at the processes of creating and performing in the arts. More recently, the Project has been involved in: planning a television series for education in the arts; planning a television series in the humanities; assisting a major museum in the installation of its collection so as to insure maximum educational effectiveness; developing and teaching a new course entitled "The How of Art: Educating Creative Process"; and recommending policies and procedures for arts education and mathematics education to state and national groups.

avoided any single psychological approach. Thus, it takes judicious account of the psychoanalytic tradition, which concentrates on the motivation of the artist and the audience (exemplified by Otto Rank), and the Gestalt school, which focuses on "certain laws of perception" (exemplified by Arnheim), as well as many others including the psychophysical and the behavioristic.

All of this may sound abstruse to the point of absurdity to the arts educator who wants to know what to do Monday, or to the eager but insufficiently informed administrator or classroom instructor who really wants to do something constructive and enterprising about the arts in education. Even the most open-minded reader may be stopped in his tracks when Goodman suggests four symptoms of the aesthetic: "syntactic and semantic density . . . as well as syntactic repleteness and exemplificationality."

The reader might be well advised to surmount such semantic density and persist with Project Zero's researchers in their effort to cut through accumulated deadwood to a clearing of sorts. The familiar disclaimer against construing the early results thus far as "recipes for immediate application by the arts educator" may seem more apposite than usual. By now, however, its directors believe that Project Zero is moving "from zero to one." Under more recent post-AHP grants, the early concentration on psychological experiments has been supplemented by practical applications to the world of museums, schools, and television. The box on page 21 gives further details of Project Zero's evolution, in the words of its own researchers, with emphasis on recent directions.

Chapter 4. The "D" in R. & D.

Research and development is one of the concepts that education picked up from the world of industry. R. & D. belongs to what Raymond Callahan called "the scientific movement in education," in his notable 1962 study Education and the Cult of Efficiency." [1] This movement has had salutary effects but malign ones, too, when the profit-and-loss, input-output orientation of the enterprise system has been applied too literally to the distinctively different world of education. The furor over "accountability" is an example of its current manifestations, along with cost/benefit analysis, competency-rating, and the "trade-off" concept. The swelling invocation to make education more "humane" is in part a reaction against the excesses of rationalizing an essentially untidy process.

It is therefore probably all to the good that the Arts and Humanities Program molded R. & D. to its own purposes, putting the cart before the horse. Classically—in medicine and rocketry as well as in industry, commerce, and in communications—research generates a new product, an idea, or a method. Each must go through a design-and-testing stage to verify its initial value and to minimize bugs; then, through broader trial-runs in a selected marketplace (shopping mart, clinic, highway, proving ground) and back to the drawingboard/laboratory for modifications. Finally, a pill, missile, doll, computer, station wagon, or advertising slogan emerges as having been readied for general consumption.

In the AHP sequence, "D" comes before "R." That part of the program called "developmental activities" had as its prime goal to spur useful and usable research. (Thereafter, presumably, the accepted cycle would proceed.) These activities, which included more than 30 conferences and about the same number of surveys or "status studies," accounted for about $1.6 million, or almost one-seventh, of the AHP's entire investment. The official line was set forth thus in a 1966 interoffice memorandum:

> The primary means for developing an informed constituency which would utilize Federal resources to improve education in the arts and humanities was the planned use of developmental activities. . . .
>
> The pattern which has emerged has been, first, to hold a planning conference which brings together educators in the specialized field, curriculum specialists and educational theoreticians, psychologists and sociologists, administrators, critics, historians, and practitioners such as musicians, artists, and composers to make recommendations regarding the status of a particular field in education.
>
> Secondly, activities which involve extensive background work are combined with dissemination conferences to develop guidelines for needed research and curriculum improvement.
>
> Thirdly, surveys are made of innovative projects and programs which can provide models for the field as a whole, or suggest changes and new approaches to improve education generally.
>
> In addition, several developmental activities have been directed toward needs peculiar to a specific field. . . . These developmental activities have resulted in statements and recommendations of major significance regarding the status of the fields involved, and steps which need to be taken, which have received national attention at all educational levels, both within the educational enterprise and in informal educational programs. They provide assurance that established priorities and program goals represent the consensus of the best thinking which can be had. They have produced an informed, intelligent and energetic constituency which is ready to use all available resources in an imaginative fashion to meet educational needs. Finally, they have

served to stimulate a large number of proposals in a variety of fields.

SURVEYS

It is hardly surprising that the "pattern" outlined in the official memo quoted above didn't always fall into place so neatly and coherently as the policymakers would have it. The surveys, for instance, were exceedingly diverse in subject matter, scope, interest, and influence. In some fields small connection can be discerned between the studies funded and other pieces of the developmental pattern, though this reservation need not diminish their usefulness. Thus, art education accounted for eight surveys, most of them modest in purpose and funding—five dealing with postsecondary art offerings, facilities, and research needs in particular institutions, States, or regions; one with the uses of media in art education; one with museums; and one with nationwide certification requirements.

The standout in art education was "A Study of the Relation of Museum Art Exhibitions to Education." Based on interviews at 57 museums, this study by Bartlett Hayes, Jr., then of Harvard, produced forthright conclusions as to the generally inept use of museums by public schools, recommended sharp changes in current practice, and may well have helped the present widespread efforts to transform the cliché of the harried teacher hustling bored kids through the American wing or the Rembrandts. The Hayes study was included in a book published in 1968 by the Smithsonian Institution that was widely disseminated.[3]

Don Bushnell's "The Arts, Education and the Urban Subculture," a one-of-a-kind survey completed in 1968, exemplified the AHP's interest in arts for the disadvantaged and in community arts. Actually, despite its title, this 293-page report dealt almost exclusively with the performing arts—theater, filmmaking, dance, jazz, rock. Surveying over 320 community arts centers in both rural and urban settings, the author found that urban "community programs serve the indigenous student populations better [than public school compensatory arts programs] in every regard except one: numbers enrolled." The recommendations were sweeping, ranging from the development of reading and writing skills through film and television productions, to "the launching of a nationwide campaign for the arts as an essential ingredient in general education." According to Mr. Bushnell, substantial publicity in *Saturday Review* and Manhattan's Village Voice generated thousands of requests for his report, which was published by the Communications Foundation of Santa

Barbara, Calif.; it has also seen some use as a college text.

How was it that art education, which accounted for more than a third of all the conferences, produced more limited surveys than music education and theater education, both of which accounted for almost two-thirds of the AHP's total studies and surveys? Doubtless a number of different explanations are in order. Theater, as one of the newer arts to find a toehold in school and college curriculum, naturally had an extra impetus to amass information and technical guidance. The eight theater-education surveys were evenly divided between status investigations, like those in art education, and studies of specialized theater problems. Thus, in the first category appear such projects as a survey of interracial theater in the United States from 1956 to 1966, a description of community theaters in the United States, another of college and university theater departments, and a survey of the status of theater in U.S. high schools. (This last study predictably found that most high schools put on plays but few offer theater-arts courses.) The second category included such projects as a survey of outdoor drama techniques (meaning mostly "epic presentations" and historical plays), a report on graphic sources for teaching Restoration acting style, a study to adapt theater-arts materials from European countries for use in the United States, and architectural recommendations for secondary school theater space and equipment.

The 11 music-education studies were considerably more diversified, including only a few surveys of institutional departments (e.g., an evaluation of graduate offerings at selected California colleges) or available teaching materials. The remainder ranged widely—from a rather offhand analysis of student attitudes toward contemporary American music (finding: appreciation grows *in part* through familiarity and understanding), through a modest but professionally important exploration of ways to identify and measure musical talent, to several extensive surveys of the research literature previously cited. The surveys also included the AHP's single project dealing with the therapeutic role of the arts: "An Analysis, Evaluation, and Selection of Clinical Uses of Music in Therapy," directed by the late Everett Thayer Gaston of the University of Kansas, a leading authority in this field. The Thompson/Hill study, "The Organization, Administration, and Presentation of Symphony Youth Concert Activities for Music Educational Purposes in Selected Cities," rated one of the slicked-up, well-illustrated "popular" publications by the Office of Education, under the title "Schools and Symphony Orchestras."[4] One of the most interesting—Ronald Thomas's "Study of New Concepts, Procedures, and Achievements in Music Learning as Developed in Selected Music Programs"—will be treated in its proper place as an outcome of one important project and the progenitor of another.

The chief reason for the relatively large number of music-education surveys may well be the converse of that suggested for theater—the very fact that music as the best established of the arts in the schools and colleges had the most experience and research to look into, as well as the biggest constituency of organized practitioners. Furthermore, music with its myriad subdivisions and diversity of instrumental equipment cries out for specialized knowledge. And then, of course, one must not overlook the sheer play of chance in any assessment of why the AHP did what—the conjunction at the right moment of the right proposal with the right administrator.

CONFERENCES

In retrospect Kathryn Bloom believes that "far and away the most important money the program spent was for the series of developmental conferences." Of the 32, 12 dealt with art

education, 6 with music education, and the rest were scattered among theater, dance, humanities, communication media, architecture, and multiple arts.

In documenting her position, Miss Bloom adduces Harlan Hoffa's "An Analysis of Recent Research Conferences in Art Education,"[5] an OE-sponsored report published late in 1970 which covered 17 conferences held in the midsixties (including several with support from sources other than the AHP). An unusually forthright, informative, and candid report, it is written with humor and authority. In his summation, Dr. Hoffa wrote that "other than that all were concerned with art education," the common denominator of the conferences was that "each was set up *for the sole purpose* [emphasis added] of identifying research strategies for the solution of particularly pressing professional problems." Then, after tracing the decline in the Federal climate favoring the arts and arts education, he declared the long-range effect of the conferences to be "disappointing." Whatever their net effect, they failed to generate important changes in art education. As "revival meetings," the conferences rated a resounding yea; as a means to develop sound research proposals, a qualified but conclusive no. By and large, Hoffa felt those conferences most successful—or most evidently successful—that addressed themselves to delimited, however difficult, goals.

The conferences analyzed by Hoffa were confined to those concerned with art education, it should be noted. Next to art education, the largest category of conferences dealt with music education. (The preponderance in art and music, according to the 1966 memo quoted on p. 23, resulted from "priorities in the employment of staff in these fields and the readiness of researchers to utilize available resources to meet perceived needs."[6]) And the first and most influential and still most famous of all the developmental conferences took place in April 1963, some months before the creation of the Arts and Humanities Program as such and the appointment of a director. Project G-013, modestly entitled "Seminar on Music Education" and directed by musicologist Claude V. Palisca, is generally known as the Yale seminar or conference. Though it was entirely supported by Office of Education funds, the Office played a minor part in its planning and execution. As mentioned in chapter 1, the instigator of this seminal event in arts education was physicist Jerrold Zacharias of MIT, then head of the Panel on Educational Research and Development of the President's Science Advisory Commit-

tee. Joseph Turner, a staff associate of the panel, had much to do with planning the 12-day program and selecting the 31 participants. Another key planner—the chairman of the steering committee—was composer and conductor Lionel Nowak of Bennington College.

The opening paragraph of "Music in Our Schools," the "popular" OE-published report on the conference, characterized conference participants as "musicians, scholars, and teachers intent on improving elementary and secondary school music," and noted that their experience was "far from being limited to education."[7] This bland understatement must have prompted many a bitter laugh or unprintable comment back in 1964. Most notable and outrageous about the conference's makeup was the low representation of the music-education establishment (e.g., officers or members of the Music Educators National Conference (MENC), the national organization of public school music educators). Fewer than a quarter of the participants were public school music supervisors or directors, school administrators, or teacher educators (the maverick Ronald Thomas among them). Predominantly, the conferees were composers, performers, conductors, musicologists, critics, and college music faculty. No bona fide member of the music-education club (in the MENC sense) had served on the steering committee either. But the dozen or so observers included MENC's executive secretary and also Harold Arberg, who in fact had prevailed on Nowak, Turner, and others to include educators among the participants.

Though the Yale seminar may be ancient history, it would be foolish to bypass this conference. To begin with, the conference's composition and findings rocked the establishment. So did its unusually wide publicity (in such leading dailies as the New York Times, the New York Herald Tribune, and the Washington Evening Star thanks to participating newspaper critics).

Although resentment by music educators has not entirely evaporated during the many years since the Yale event, they deserve credit because they took their medicine along with many of the sweeping Yale recommendations to heart (with results visible to some degree in the schools). And it was hard medicine for the music education establishment to swallow. Though the Panel's final report recognized the "feverish and massive" musical activity in the schools, it assailed the preponderant emphasis on group instruction and performance. The conference report attempted even-handed analysis of the gap between the realm of professional music in America and the realm of music education in the schools; it conceded that few composers, performers, or musicologists had the inclination, or took the time, to cultivate relations with schools or to bring students any sense of the realities and variety of contemporary American music.

The report leveled sharper criticism at the music educators. "The field of music education has become a far-flung realm with its own traditions, associations, organs, and experts. It has become increasingly difficult for forces outside this complex to influence music teaching. Teachers colleges . . . promote a certain parochialism by guarding their faculties against the intrusion of those not educated within the system of which they are a part." And, while allowing for exceptions, the report concluded that the majority of teachers "have been trapped by the pressures of public performance and of community and student tastes into a deplorable routine that produces mainly superficial results," the worst being the mass production of "the musical technician, follower, and teammate" without the nourishment needed for initiative and independence.

An abbreviated outline of the conference's recommendations for improving music education is shown on page 28. These range from imaginative

and diverse ways of developing musicality through teacher training and retraining to simple schemes for tuning instruments. This sampler may encourage readers to consult "Music in Our Schools," which briefly presents a wealth of specific and stimulating ideas for enhancing music education. Many are controversial or overambitious; most, whatever one's view of their merit, are still fresh and provocative. Despite the many un-

Yale Seminar on Music Education: Summary Summarized

Musicality: This, the primary aim of music education from kindergarten through 12th grade, can be accomplished through vocal and instrumental performance; bodily movement in response to music; composition; real listening and ear training.

Repertory: School music should be brought in line with contemporary composition and advances in musicology, while being strengthened also in standard concert literature. Include jazz, folk music, non-Western music.

Music as Literature: A continuous sequence of graded listening experiences belongs in a balanced elementary and junior high school curriculum. Every high school should offer courses in music literature whereby the student can have intensive experience with a limited number of representative works.

Performance: A balanced program for secondary schools would put less emphasis on marching and stage bands, more on vocal and instrumental ensembles, especially the smaller variety.

Courses for Advanced Students: Offer theory and literature for those sufficiently advanced musically. Cut down on survey courses, concentrate on illuminating a few works of excellence.

Musicians in Residence: For the good of students, and for bringing the music professions closer to American life and education, bring musicians, composers, and scholars into the schools.

Community Resources: Encourage collaboration of seasoned community musicians, relaxing certification requirements if necessary. Expand library and research resources.

National Resources: Provide advanced music study for less populated regions through such means as regional cadres of skilled teachers; national or State academies of music, drama, and dance; educational adjuncts to community arts centers.

Audiovisual Aids: Make greater use of films, records, television, tape-recording—for many purposes including self-instruction, self-appraisal, and widening the school repertory. A national research institute might well develop such aids.

Teacher Training and Retraining: Curricular reform implied in seminar's recommendations requires an extensive scheme of teacher education—training in music for classroom teachers, in teaching for musicians, in new emphasis on literature and creativity for those teaching music now or in training to do so. Organize university institutes, regional workshops for these purposes.

known quantities with which the report deals quite candidly, it could be an eye opener to the frustrated classroom teacher or music specialist, the qualified citizen who is eager to help improve the school's music programs, or most of all, the administrator or curriculum director who may be dissatisfied with his school's or school system's music program and would welcome specific alternatives.

The Yale seminar is worth recalling for other reasons. It succeeded more than most conferences in its "developmental" function of stimulating research proposals—an estimated 25 in all (some drafted right at the conference). About a quarter of these proposals were funded by OE. Since the conferees aspired to nothing less than reforming the entire school music program, it is hardly remarkable that their reach far exceeded their grasp. And so the Yale Conference, for all its fervor and fame, did not generate the elaborate followup it hoped for. This included devising and testing a pilot K-12 music curriculum; mounting a series of teacher-training institutes, workshops, and seminars; and creating a national institute to develop materials and to inform the public. Some, if not all, of the research identified as "most urgent" has been undertaken with promising results. And, at the very least, it influenced the development of healthy trends in school music.

It would be unsound, of course, to credit the Yale seminar with changes that have come about in music education since 1963 simply because the seminar advocated them. For one thing, since the Yale conferees in their intensive 2 weeks probed and prodded almost every conceivable idea for reforming music education, their recommendations were all-encompassing. To some extent, then, this meeting served as catalyst for concerns, doubts, ambitions, and ideas shared by many people all over the country. But it was the first such distinguished and earnest gathering to put it all together under governmental sponsorship. Thus, in addition to projects directly attributable to the Yale seminar, it seems fair to credit it with a potent assist in promoting such impressive—if far from universal—developments as greater attention to music as literature, musicians in residence, and expanded, upgraded, and modernized school repertories. Above all, the seminar served to rouse to concerted action at least some segments of the divided realms of music.

To Claude Palisca, principal investigator of project G–013, the most significant development in music education since the year of the seminar has been "the acceptance of the idea that non-Western music should have a place in general music education." Noting that the *Music Educators Journal* devoted its entire October 1972 issue to such music, Palisca said: "I never thought that in ten years this idea could go so far." (He gives due credit to such contributing influences as the counterculture, the wider acceptance of the music of India, and rock musicians' interest in Eastern music generally.) He also singles out from the themes of the seminar the increasing attention to improvisation and composition by students (a particular passion of five of the Yale participants).

The final reason for recalling this event is that the seminar, as Palisca recently observed, "served as a model for similar seminars in visual arts, dance, theater, and so on, though their reports showed that the outcomes of these conferences took very diverse directions." Before the creation of the AHP, OE's Cooperative Research Program had sponsored a few developmental conferences—e.g., on juvenile delinquency and on guidance and counseling. And, of course, in the world outside arts education, the commingling of a wide variety of people to address themselves to a given theme had become a commonplace. Until Yale, however, the practice was unknown in arts education. And even though the music educators felt them-

selves outnumbered, misunderstood, and generally one-upped by the participants from the music professions, there was apparently a genuine effort to involve the education establishment. Indeed, the foreword to "Music in Our Schools" asserts that the seminar's "chief claim to uniqueness is that it brought together for the first time in such an extended and comprehensive session leading representatives of the many disparate elements which comprise the field of music."

From the present vantage point, Kathryn Bloom tends to dismiss the relative failure of the conferences to generate important research projects. (And, indeed, the 1966 memo plays down research, and leaves to the end of the roster of objectives the stimulation of "a large number of proposals." [9]) Also, quite apart from whether or not the conferences were well-conceived and planned, extrinsic forces altered their impact. Under the subhead "The Non-Consequences," Hoffa wrote of the art conferences (but the judgment applies in general):

> If the Arts and Humanities staff in Washington expected a great flood of research proposals following these conferences they must have been doubly disappointed: first, because no such flood occurred and, secondly, because the federal trough went dry at just about the time when the maximum payoff in proposals might have been expected and, even when new research interests were stimulated, the Arts and Humanities Program was incapable of supporting them.[9]

He also observed:

> . . . these conferences did, indeed, influence art education in ways which would not have been duplicated in the normal course of events. It is equally true, however, that this influence was not that which was intended in the mid-sixties when the influence of the Arts and Humanities Program was vital and well regarded. It is now obvious that, though the intended purpose of these conferences (the stimulation of coordinated research in art education) was less than a sparkling success, there are other tangential and indirect outcomes which may, nevertheless, be notable and worthwhile.[10]

It is these "tangential and indirect" consequences to which Miss Bloom now attaches greatest weight. ("It's taken me all this time to realize the value of those conferences, things I didn't see even a year after.") Foremost was the sheer fact of convening so many influential people in the arts and in arts education and a wide range of other fields—around 1,500 people in all—to learn from each other, work together, perhaps think new thoughts. Equally important was the efficacy of the experience, which of course varied from conference to conference, in persuading a fair proportion of these people to start concentrating on national problems and priorities. Whether or not the conferences per se "developed a constituency," as Miss Bloom now believes, is subject to debate (not to say the "in-

formed, intelligent and energetic constituency which is ready to use all available resources in an imaginative fashion to meet educational needs," as projected in that 1966 memorandum)."

Whereas there was considerable diversity among the conferences as to duration, size, scope, tone, composition and setting, still, a conference is a conference, and it would serve small purpose to review those faraway events in much detail here. The interested reader is referred to Dr. Hoffa's account and to the appendix which lists the conferences under appropriate art form or forms. Conference directors and participants, looking back on the events, tend to bear out both Miss Bloom's optimism and Dr. Hoffa's pessimism. Even though the conferences produced no flood of first-rate proposals, they did produce a fair number of good ones, some of which were funded and proved productive. "Statements ,and recommendations of major significance" *did* constitute a flood of Biblical proportions, naturally, the sine qua non of all that talk, talk, talk. With a few exceptions, however, it is true that most recommendations (as in the case of the Yale seminar) still await substantial adoption.

Again, with some exceptions, there is no way to measure the net effect of all this developmental activity. One cannot avoid the tiresome truism that time will tell, and that the payoff, in terms of basic improvement and change in arts education, may come years from now. Hoffa illustrated his thesis—that the most immediately successful conferences were "clearly goal-directed"—by the conference on advanced placement at Colorado Springs, and the Whitney Museum conference on aesthetic education (administered by the AHP but privately funded). The first spurred acceptance of the idea of advanced placement in art (i.e., as project director Bernard Arnest defines it, "the acceleration of the progress of 'able and ambitious' high school students in art and the improvement of communication and cooperation between school and college art"). This plan—put into effect by the College Entrance Examination Board and the Educational Testing Service with support from the JDR 3rd Fund and the National Endowment for the Arts—is now in its sixth year of actual school practice, and covers not only art (studio and art history) but also introductory music. Furthermore, the program is integrally related to the "evaluation" of creative work—a question that Dr. Arnest recently observed has been "solved" by advanced placement. The Whitney conference was, like the advanced-placement conference, addressed to devising and setting up a specific new program. Its findings paved the way for the CEMREL Aesthetic Education Program.

Other such examples among the AHP-supported conferences are difficult to find. One possibility is the brief, inexpensive 1964 conference addressed to planning industrial arts programs in Appalachia: it produced a direct result but an unhappy ending. The Kentucky School of Crafts, subsequently established at Eastern Kentucky University with ESEA title III funds, went under when funding ran out. (Some Kentucky schools are still using the program, and conference director John Rowlett still has hopes of finding money to start again. He thinks, incidentally, that the Kentucky School of Crafts would have fared better had it been less simple, "more grandiose—if they'd only asked for $1 million instead of $50,000.")

Other examples can be found outside the AHP's orbit. One imposing non-AHP conference of the 1960's proves or disproves the Hoffa rule, depending on one's point of view. There was nothing limited or clearly goal-directed about the 50-member week-long symposium convened at Tanglewood (Mass.) in the summer of 1967 by the Music Educators National Conference. Its grand theme was nothing less than "Music in American Society." In a way it was the music-education establishment's answer to

Yale—a soft, almost flattering answer. For though MENC was firmly in charge, the symposium imitated Yale in mixing educators with composers, businessmen, anthropologists, psychologists, labor leaders, and many other outsiders for what the New York Times called a virtual "cram course" in the meaning of multifaceted changes—musical, technological, and social—to music education. Moreover, the "outsiders" were no mere window-dressing. Some, to be sure, stayed just long enough to address plenary sessions. But others—specialists from the fields of anthropology, technology, music publishing, psychology (the late Abraham Maslow)—took part in a second week of workshops and helped to evolve the ultimate recommendations.

The conference mix, however, included no spokesman for any of the arts except for music. So a further note of hands-across-the-sea was struck, sotto voce, by one of the participating music specialists who spoke not only for the equal rights of the scientific and aesthetic realms but for an extension of this concept that even 9 years later, indisputable as it may seem, still wants for adequate support. Harold Arberg said:

> Not only do the arts and sciences reinforce themselves, the arts—painting, theatre, dance, music—reinforce themselves. This has not been as widely recognized as it should be. I think we ought to be very much concerned with what Johnny and Jane are getting in dance education or in theatre education. If music has been waiting in the wings, so to speak, dance and theatre education have certainly been outside the stage door.[19]

With no single specific goal, the Tanglewood symposium racked up no immediate, specific achievement. But even leaving aside the intangibles—and many Tanglewood participants still recall their value—one could credit the symposium with spurring MENC to add money to its administrative and moral support of the Ford Foundation's Contemporary Music Project, and with contributing the weight of its recommendations to the sharply increased academic emphasis of recent years on non-Western music and on meeting the kids on their own pop terms.

As with basic research, it would seem reasonable to construe as a "tangible" outcome of any conference the publication of an effective, readable, useful report. Those are, of course, highly subjective qualifications, and it would be out of place here to attempt flat judgments. Some generalizations are in order, however. Most of the arts-education conferences—like most conferences on systems analysis, structural semantics, highway design, theology, or organic gardening—generated as their end-product unwieldy documents, written in jargon calculated to put off all but the most eager or determined

consumer. But some of these official reports proved readable and useful for instruction or research purposes. Justifiably concerned about "dissemination" and the desirability of presenting results as attractively as possible, the AHP occasionally issued what it hopefully dubbed "popular" versions. (Several have been mentioned in the course of this report, including the Yale seminar's encapsulation in "Music in Our Schools.") With the so-called Arts and the Poor, or Gaithersburg conference (one of the wilder, no-holds-barred aggregations), the AHP contracted with "a professional writing team in an effort to put some pizzazz into the otherwise deadly prose of the report" (to quote Harlan Hoffa). The small press run was soon exhausted though the report is still in demand and has been put to good use.[13] But, as Hoffa observed in his characteristically skeptical tone, there was little evidence that the wider audience encouraged by these efforts increased the amount or quality of ensuing research.

Sometimes a conference achieved a wider audience through non-governmental channels. The 1966 Princeton conference on theater research, for instance, was the subject of an entire issue of the *Educational Theatre Journal*.[14] The Smithsonian conference on museums retained a professional editor, and the final report in hardback was published and distributed by Random House—one of few books on the subject and still a key reference.[15]

Another well-known example is the booklet "The Fourth 'R'," which stemmed from the 1970 conference entitled "Youth, Education, and the Arts" and was published by Associated Councils of the Arts (ACA).[16] Though the conference was partially funded by the Office of Education and is listed on the AHP's roster, it was in fact the annual meeting of ACA in St. Louis (and unlike the AHP's other developmental conferences, it was not "invited"). This brief, well-designed, provocative document may provide a useful model for bringing the guts of a conference to lots more people than the participants. ACA commissioned Joseph Featherstone, an outstanding and imaginative

One Conference, Two Views: View No. 1

Not long ago, I helped design, for Associated Councils of the Arts, a conference as a research tool in itself, to be a sort of investigative seminar on a large scale, surveying the interactions of the arts, the educational world and the community from a number of vantages, and analyzing the factors that promote or work against effective education in the arts. Entitled "Youth, Education, and the Arts," the conference drew to St. Louis a thousand delegates and these delegates fell roughly into three distinct groups: artists and representatives of arts organizations, teachers and others connected with the educational system, and community leaders including a number of young people. All three groups were necessary, both to the conference design and to the changes in education.

The conference theme was set in the form of a proposition: "The arts ought to be fundamental to the education of all children." The conference proposition implies a qualitative difference in art education that penetrates to the heart of the core curriculum and looks eventually toward a basic education in the arts that is rigorous, central, and sequential from kindergarten through grade twelve.

Above all, the purpose of the conference was to explore, evaluate, and encourage community commitment. No change is possible without total community support. Unless proposed change takes into account the various elements of the community served by the schools, no strategies, no plans, no visions of a better future will avail.

In an age beset with acronyms, the conference title was chosen *before* its cheerful acronym was noticed—indeed, not until the conference buttons to distinguish staff from passersby were received did anyone realize what "Youth, Education, and the Arts" contracted into. YEA is, of course, much more than a cheer. It is an affirmation of assent, of faith, and of possibility.[17]

Joseph Farrell

critic of education, "to monitor the sessions and set down his impressions." Accordingly "The Fourth 'R' " retains a value beyond the ephemera of the conference doings which, handled selectively, served primarily as a springboard for Featherstone's thoughtful commentary and also for a free-wheeling critique of recent books on school reform by Peter Spackman, who pointed out that the books "deal in their various ways with what might be called 'opening' education in directions that could be beneficial to the arts, whether their subjects deal directly with human creativity or not."

This St. Louis conference, in itself not earth-shattering, served another

One Conference, Two Views: View No. 2

Discouraged. That's how I feel after attending the Associated Councils of the Arts Conference on Youth, Education, and the Arts [which] so vividly demonstrated the desperate condition of the arts. In the face of many problems, arts people are floundering. Wherever one looked, there was dissent, discord, and confusion—even apathy. No one who attended could have emerged with the kind of renewed vigor that initiates, reinforces, and releases the necessary hope, reason, and commitment.

The St. Louis meeting was a salute to despair. The few youth present found little they could agree with. The on-looker was confronted with an arts education picture that seemed to say, "Here are vital arts programs administered by artists; they form the mainstream of what is relevant and new and effective in arts education for youth."

Music education was largely ignored. Dance was conspicuously absent. School arts programs were not represented. The leaders of the ACA Conference never asked MENC or the American Educational Theatre Association or the National Art Education Association for any guidance in involving youth with the conference or in representing school arts programs.

The main speakers at the convention did not do much to excite the imagination or kindle a more positive spirit. The conference theme was Youth, Education, and the Arts, but one constantly heard people asking, "Where are the youth? Where are the educators? Where are the arts?"

It seems to me that there is a great lesson to be learned from this conference. Quite simply, it is that we all must pull together if we are not to fall apart. By "all" I mean the artists, the educators, and the lay people who support the arts. We must start to listen to each other. If we are to make the arts available to all, only the concerted effort of artists, educators, and laymen working together will realize that goal. Let us forget rivalry and join together to solve the crisis in the arts. If the ACA conference has taught us this, then it was a huge success. The ACA must work with MENC and other arts organizations, and in like manner, MENC must work with these organizations. It is just such a union that will determine whether in the coming days and weeks and months ahead the arts will be a force or a frustration, a hope or a despair.[18]

Charles B. Fowler

function: it highlighted the difficulties in breaching the gap between the arts educators on one hand and the nonestablishment arts people on the other. The boxes on pages 33 and 34 distill the issue: the proponent of what the conference represented, Joseph Farrell, then executive vice president of ACA, who conceived and executed the proceedings; and, for the opposition, a sympathetic but frustrated reaction by a card-carrying member of the establishment, Charles B. Fowler, then of MENC.

The art analog to the Yale seminar was the 1964 Seminar on Elementary and Secondary School Education in the Visual Arts, generally known as the New York University conference, and directed by Howard Conant, then head of art education at the university. Forty-two participants from diverse disciplines made 13 sweeping recommendations. These are subsumed on this page.

The deliberations at the NYU seminar were pervaded by dissatisfaction, to put it mildly, with art education as practiced. The dissatisfaction was voiced by art educators as well as by the glittering array of artists, critics, historians, and miscellaneous reformers who, according to the Hoffa account, not only outnumbered but also "outshouted and finally outargued" the educators.* As the boxed material indicates, the conference put great emphasis on revolutionizing the training of teachers (to make them more like artists), on the vital importance of film in art education, and on greatly widening the scope of art education as then practiced.

How can the impact of this conference be assessed? At the very least, it

*For an idea of the caliber of participants: the art educators included Victor d'Amico, Charles Dorn, Edward Mattil, and, of course, Howard Conant. The "others" included Buckminster Fuller and Harold Rosenberg; artists Motherwell, Segal, and Frankenthaler; and Roger Stevens, Jerrold Zacharias, and Kathryn Bloom.

The NYU Seminar on Education in the Visual Arts

The most important recommendations developed by the participants were, in brief:

1. The establishment of a stepped-up and improved system of art-teacher recruitment.
2. The development of a vast filmmaking and film-distributing program.
3. The development of improved visual arts instructional materials for both individual and group use.
4. The publication of authoritative, persuasive statements on all aspects of art education, for diverse audiences.
5. The employment of at least one art teacher for every 500 students, including the often neglected primary grades.
6. The provision of one art room for every 500 students, including recording and projection facilities, for both independent and class work.
7. The development, in teachers other than art specialists, of greater competence in and responsibility for overall art programs.
8. The broadening of art instruction to include urban design, architecture, and photography, and to foster more open-ended and freer studies.
9. An emphasis on the development of visual perception in everybody, through school and beyond, into college and adult life.
10. Increased and chronologically graduated emphasis on study of past and present art works throughout education, with greatest possible access to originals.
11. Widespread, far-reaching reforms in training of art educators, in all its aspects, from studio work to broader humanistic education.
12. The interdisciplinary development of a graduated art-education program from pre-school through continuing education.
13. The involvement, through institutes and other means, of artists, art scholars, and others with school and college art teachers, with the stress on twentieth-century visual culture.

apparently spawned (or in some cases "provoked" may be the better word) other conferences. It set a precedent in the visual arts for mixing the traditionally inimical worlds of art educators and art professionals. Illustrated with reproductions and assorted graphics, the conference report, published and twice reprinted by NYU, got wide circulation. Many colleges use it as a text. And the conference did inspire or help to inspire a number of projects in curriculum development.

The NYU conference director Howard Conant, presumably one of the embattled educators, takes as gloomy a view of the state of art education more than a decade later as might be expected of the farthest out anti-educator artist. Now head of the art department at the University of Arizona, he believes that the time is long past to get the teaching of art away from the "artless pedagogues" and into the hands of artists. His position, however, mediates between the extreme positions voiced at the 1964 conference: yes, art educators must be artists, deeply committed to their art, but they must also know how to teach. Although the NYU conference contributed to the now flourishing artists-in-the-schools movement, nonetheless Conant is one art educator who criticizes many such programs for disregarding this prerequisite.

In general, and always excepting the Yale music seminar, those conferences concerned with the visual arts seem to have made the greatest impact (and not just because they accounted for about half of the conferences). Every art form got its conference, to be sure. (In the case of architecture, a developmental conference was the *only* project funded.) The humanities generated three conferences, but of quite limited scope. The music-education conferences that followed Yale did so in time only, for the most part concerning themselves with specialized fragments of the all-encompassing Yale agenda. Included, as in such other disciplines as theater and the visual arts, was an international conference attempting the exchange of promising ideas across national boundaries; but those were the days when international education was, briefly, "in," and the climate thereafter did not favor productive followup. The conference on the role of dance in formal education may have been the most useful of the AHP's six projects in dance, though, despite its title, the conference limited its attention to higher education. Alma Hawkins of the University of California at Los Angeles, who directed that conference, feels that it was "of immeasurable value," though often there's no proving direct cause-and-effect.

Dr. Hawkins said:

> For one thing, the timing was exactly right—dance departments were just beginning to unfold in the colleges. The conference not only established a philosophical and conceptual base, but also raised practical issues.
>
> Participants developed their dance departments in their own ways, of course, but I think the conference provided an underpinning that made a tremendous difference—for instance in the development of dance departments at New York University, Ohio University, the Universities of Maryland and Utah, and at Florida and Colorado State Universities.
>
> We had a followup meeting with the thirty-five conference participants. And the dance department chairmen from this group formed the Council of Dance Administrators. Our yearly meetings are, well . . . *fantastic*. We really work together, thinking out problems, trends, possibilities.
>
> The findings of that 1966–67 conference are still not outdated—which is sad, in a way, for it shows how much convincing still needs to be done before college administrations will establish or strengthen dance departments. I'm still sending copies of the final report out to people who, for instance, want to know how to get a dance major established, or who need it as a resource in graduate classes.

One way to look at this success story, of course, is that dance as an academic discipline started so far down there was nowhere to go but up. Plausible, but it still doesn't detract from the value of that dance conference. Such an interpretation, however, does help to explain the difficulties of judging the effectiveness of the conferences in a field so relatively well established as the visual arts.

The two conferences on museum education sought, in different ways, to enhance the educational role of museums and their staffs for both students and schoolteachers. Margaret Kiley's museum "conference," in which Jerome Hausman played an active role, was actually two teacher-training institutes based in the National Gallery of Art, in Washington. These institutes stressed inter alia a "cognitive learning process that will enhance capacities to understand and appreciate works of art," and apparently were fine as far as they went. Dr. Kiley now ruefully concludes that the institutes did not go much farther than the 70 participants immediately involved. While she still feels "it was one of the most exciting, stimulating, and worthwhile undertakings in art education in decades," she cannot believe that the procedure has, or had, much future as a model for teacher education because of its very high cost (close to $1,500 a head). As one knowledgeable participant said: "This was ostensibly a failure, but worth doing. For it showed what worked and what didn't."

The second conference on museums and education followed the conventional form for such events. Directed by Charles Blitzer of the Smithsonian Institution, the conference tried to determine, through workshops built around 15 prepared presentations, how to make more effective educational use of America's 5,000 museums, and (of course) to stimulate R. & D. toward this end. But, while recognizing the widespread shortcomings of museum education, the conferees realistically concluded that "limited fiscal and staff resources make it unwise to greatly expand programs until public needs for museum services are more carefully evaluated." Reviewing the conference's impact, Blitzer has gracefully expressed familiar qualifications. "We can describe things that happened later, and we may feel sure that the conference had some degree of influence on subsequent developments, but we can rarely prove that they would not have occurred anyway." On the positive side: the good distribution of the final report, which was issued as the book "Museums and Education." [19] On the negative side: what Blitzer considers the limited response of museum educators, small in number and then unorganized. The conference prompted very few R. & D. proposals. As to other results, Blitzer takes a moderate position:

> I know that the lively discussion . . . of special museums for special audiences ("a drop-in museum for dropouts") helped a great deal in the thinking that preceded the creation of the Smithsonian's Anacostia Neighborhood Museum, which opened in 1968 and is now a well-known and influential innovation. Frank Oppenheimer carried the ideas he developed at the conference directly into action with his

San Francisco "Exploratorium," a new kind of science museum that has attracted wide attention. Beyond that we enter the realm of speculation.

Finally, in this sampling: the 1965 Seminar in Art Education for Research and Curriculum Development, known as the Penn State seminar for short, was directed by Edward Mattil, then head of Penn State's department of art education. It brought together for 10 days "fifty of the finest people in the country" (Dr. Mattil's words). Harold Rosenberg was there, a few professors of fine arts, and arts-education's favorite sociologist, Melvin Tumin of Princeton, but almost everybody else was in the business of teaching art teachers. No problem here, as at NYU, of being "outshouted and finally outargued." (But the chairman made time at the end for "Spontaneous Summary Statements by Specialists"—see excerpts in box on p. 39.) It was a long, intensive, hard-working conference, the discussion taking off from such broad topics as "The History of Art in Education" (Joshua Taylor), "Society, Art, and Education" (June McFee), and "Sketches Toward a Psychology of Learning in Art" (Kenneth Beittel). By its very theme and nature—that is, the concern not only with curriculum but with the boundless subject of research—the conference did not conclude, nor was it intended to conclude, with a roster of recommendations. The participants cruised deep and wide into the mainstream and the rivulets of art and art education. A glimpse of their explorations can be found on page 40, where the reader will find boxed and paraphrased brief excerpts from Chairman Mattil's summary statement.

According to Mattil, this conference worked well "because it was plotted and planned carefully." No passive spectators were allowed, no rehashing. Everybody had to work. Penn State refurbished the drab looking official report to OE with a bright red cover and pictures, and has since reprinted it several times. Like the NYU report, it is still in use as a graduate text. But Mattil feels that the influence of the conference might have been much greater—the same sad story again—if it had not hit the strained Federal budget of the late sixties, which precluded the earlier vigorous R. & D. efforts in the arts.

Despite this anticlimax, "the Penn State conference has probably had a more lasting effect on art education than all the others combined, the principal reason being the meaty character of the seminar report and its wide distribution through university channels," according to Hoffa. He also counts this conference among those which, in his view, counterbalanced

the NYU conference's emphasis on artist-as-teacher and the making of art. (Others were two Ohio State conferences dealing with how to improve art appreciation in the secondary school, and the museum conferences.) It emphasized, he has written, "conceptual learnings in art," and offered "the first published suggestion for an institute devoted to the systematic study of aesthetic education." (The avowed progenitors of CEMREL's Aesthetic Education Program are almost as numerous as those of the Artists-In-Schools Program.) A unique aspect of the Penn State seminar's careful plotting and planning was the focus of small-group discussions on 21 research and curriculum-development proposals that participants had been asked to prepare in advance; but, as things turned out, only 5 of these were funded.

To sum up: These conferences failed to generate the wealth of good research they were designed for, in good part because of such extraneous circumstances as budgetary cutbacks, the dropoff of high-level Federal interest in the arts-in-education, and the attrition of the Arts and Humanities Program. For all their diversity they shared the valuable by-product of bringing hundreds of arts educators and other interested people together, fostering connections that still endure. In the process, some of the conferences helped to get a dialogue going between realms once estranged—the realm of the arts educator and that of the professional artist. Their most tangible product—the conference report—in many instances got good distribution, especially when a readable version was issued, and a fair number of them are still used today as

Penn State Seminar: Fragments From "Specialists' Spontaneous Summary Statements"

Harold Rosenberg, critic: I think I've said enough about art, anti-art, the usage of art, and the dangers of having art education without art. But yesterday it suddenly occurred to me that one of the things that people rarely think about is what you might call the "seamy" side of art which may be one of its greatest resources in teaching kids . . . . Some critics, like President Eisenhower, really want art to be an "ideal creation." And that's what makes it difficult to teach. This ideal creation is just as boring to kids as any other ideal creation with which they deal in classrooms.

Allen Kaprow, professor of fine arts: If an artist has been teaching in a slum area and has been doing marvelous work it is conceivable that if you brought this same fellow or girl into . . . the most welcoming school in the world, the performance level would drop drastically largely because of the . . . environment.

Melvin Tumin, professor of sociology: I used to vary between the statement that "I know what art is but I don't know what I like" or "I know what I like but I don't know what art is." Now I'm prepared to say that I don't know what art is and I don't know what I like, but I know it's good for me. So if it's good for me it has to be good for you and for everybody else, too.

Francis T. Villeman, professor of education: It is not enough . . . for us to say art is good and it does these things for us. We need philosophical analyses, researches into the value structures which provide a secure place for the art in the schools. . . . It would be exceedingly well for people in art education to collaborate in a very intimate fashion with the people in music, dance, film and so on . . . and in collaboration with people in social studies and with mathematicians[too].

Joshua Taylor, professor of art and humanities: Art keeps us alive. It's a little thorn that artists have a way of creating when we are walking in our bare feet—that is, the bare feet of our sensibility. I think that possibly if this is emphasized we will be able to make more contact with people. That is, if art is looked upon for what it provokes rather than what it hides.

Elliot Eisner, professor of art and education: By rolling up our sleeves and getting into the very difficult problem of thinking through in very practical terms the . . . things we are going to be doing, the . . . ends we are going to be working toward, the . . . materials we are going to be using, the . . . instructional strategy we are going to be employing, we will have an opportunity to learn a great deal about learning in art and about the . . . things we can do effectively. I am filled with ideas that have come out of this conference.

The Penn State Seminar, Chairman Mattil Speaking:

This [seminar], in a way, needs no ending. It began as an invitation to open the whole field of art education for critical examination and re-evaluation with the hope that some promising research and curriculum development directions would be forthcoming. It was never the intent of the planners of this meeting to champion particular viewpoints or to damage others. Rather, the seminar planned to entertain as many useful ideas as possible, in a limited period of time, and see if some inroads might be made into major problem areas.

The papers of this seminar have attempted to answer the charges presented by the planners. . . .

- Basic relationships between art education and philosophic inquiry
- The need for qualitative research in art education
- The status of the history of art and "art appreciation"
- Fresh and direct approaches to the understanding of contemporary art
- New possibilities through the direct confrontation of art and artists as mediators of aesthetic education
- The content of art education, questions regarding its components and the need for change
- Theoretical relationships between research in teacher education and the social sciences
- The sociological implications for art education
- Art education and learning theory
- The application of empirical research procedures to learning and the artistic process
- Theoretical and practical concerns of curriculum development
- Philosophical research methodology and its meanings

The panels and the small group discussions have clearly demonstrated the usefulness of working together. Each day brought the participants closer to some common understandings, but each day also pointed out the need for greater precision in language, [the need for] definition of concepts, and the inconsistencies in the stated goals of art education.

guides and textbooks. The conferences persuaded an influential segment of the arts-education establishment, as well as a number of professionals in the arts and representatives of other disciplines, to focus on the big picture—the status of arts education in the United States, the need for change, some consensus on priorities.

From the deliberations of these disparate conferences and their welter of resounding recommendations, certain common themes emerged built around the following needs:

- To radically improve the education of educators, both classroom generalists and arts specialists.

- To work out careful, well-researched, sequential curriculums for the arts.
- To involve artists and the community more actively in the schools and colleges.
- To blast specialists out of their hermetic cubicles; to get them to join together as *arts* educators in their likenesses and their differences in order to realize the power of the aesthetic in education; and to work with other disciplines.
- To engage children and older students more actively and imaginatively in both the practice and the understanding of the arts.
- To embody seeing, listening, acting, movement integrally within the humanistic core of learning, and to establish the "literature" of music and art in the standard curriculum along with the accepted, but one-sided, literature of books.
- To play down the overemphasis on public performance or exhibition in favor of education keyed to the present and future good of the individual student.
- To plant deep and wide in the educational system such recently introduced or academically downgraded art forms as film, dance and body movement, and drama and improvisation.
- To find out much more than is now known about how human beings learn about and through the arts, the symbiosis of perception and cognition, and how to put this knowledge to work.

Most of these needs are nearly as critical today as they were 8 or 10 years ago. Some progress has been made, to be sure. But reformers and activists, seeking to advance the arts in education, can find ample ammunition in the detailed findings and recommendations of many a conference.

Chapter 5. The What and How of Education in the Arts

About half of all the AHP's projects, accounting for about 65 percent of grant funds, dealt in some fashion with curriculum development—the program's equivalent of applied research. (This concern informed many of the AHP's so-called developmental and basic research grants as well.)

Under this rubric, the range in kind and size of projects was wide. Whereas a few directed their attention to the gifted, most were concerned with "providing opportunities for children and adults to participate in the arts on an amateur—as distinguished from the professional—level for their own pleasure, and as a means for developing understanding and appreciation of the arts."[1] With several outstanding exceptions, projects tended to be modest in their objectives: how to upgrade the elementary school song repertoire, for instance; or to gauge the right timing and mode of instruction in drawing; or to devise improved instruments for measuring the potential or achievement of students in this or that art form. Again with some important exceptions, most projects looked toward augmenting or improving what was already being done—if the experiment worked and the word got out: small, but possibly important, steps toward making the arts more central in education.

How to see the forest for so many oddly assorted trees? Analysis of the 100 projects suggests one way of regrouping them that provides some perspective. The bulk of these grants dealt with the substance of curriculum or with instructional methods, often with both. The remaining grants, around 20 percent, were keyed to measurement or testing. These categories, though they are somewhat arbitrary and far from watertight, at least facilitate comparisons and contrasts among the different fields of arts education.

MEASUREMENT AND TESTING

Among the relatively few curriculum-development projects dealing specifically with testing and measurement, nearly all inevitably dealt with music or the visual arts. Some were part of the effort to somehow fashion empirical, inductive standards for both art objects and the doing of art. The late Mary Rouse, for example, in a 1964 project called "Development and Validation of a Descriptive Scale for Measurement of Art Products," tried to develop a method by which art objects of a variety of types—e.g., painting, drawing, construction—could be judged on a single scale. The basic purpose was to get away from the "good" vs. "bad" habit and to build a "standardized set of terms" for describing objects largely in terms of primitiveness or sophistication. The original unwieldy group of 38 possible characteristics was reduced to 20. Several subsequent studies have used all or parts of the scale in their testing operations. In 1973 Dr. Rouse said that the scale's reliability had held up well, and that it should be applied to analyzing art works of different historical and stylistic periods.

Meantime, Ruby Claire Ball, building on work by Beittel, Burkhart, and others, investigated and adapted tests that would help determine creative traits among college students. She concluded that the most objective and discriminating instrument for creative

traits appeared to be the "incomplete figures test, similar to that used by Kate Franck, Torrance and others." Miss Ball doubts that her small project made any noticeable impact on education, and feels that one of the main outcomes was "the accumulation of evidence relating to complexity of personality." She does feel, though, that such findings as hers are helping to generate "new activity in the way of action research on interdisciplinary creativity, and giftedness in general," and would like to see the approach used in investigating the role of the arts in the lives of the poor, of ethnic groups, and other population sectors.

Related to Zimmerman's study of children's conception of musical sounds was one by Frances M. Andrews and Ned C. Deihl of Penn State, which was designed to develop a technique for identifying elementary school children's concepts of pitch, duration, and loudness. This study, according to the authors, was prompted by the stress then laid on "curriculum development based on a conceptual approach to music learning." (Again, an example of the rush to replace "subjective experience and judgment" with "empirical evidence.") The instrument developed to measure musical concepts was found to be adequate for research purposes, but it needed further refinement to be usable in the classroom. In 1969, Dr. Newell H. Long, who recently retired from the department of music education, Indiana University, developed a test to determine music discrimination among elementary school children. Here, too, the outcome was deemed satisfactory but subject to technical and substantive improvement ("the use of jazz, ethnic musics, and electronic music as test items should be explored"). Since 1969 Dr. Long has administered the test to more than 2,500 children, but he does not believe that its reliability warrants standardization—"as much as a fourth of the test needs revision."

Another measurement project was based on the hopeful and popular premise (still not *dis*proved) that productive involvement in the arts might strengthen the abilities of children to cope with the three R's. But as in AHP's other projects of the kind, no such transfer was established. In brief, the experiment, which was designed by a consultant to the Sidwell Friends School in Washington, D.C., plunged some 100 "underachievers," both from the middle class school and from the innercity Morgan School, into an intensive summer program of crafts, and of dance, drama, music, and other arts. Harold Cohen (now dean of the School of Architecture and Environmental Design at the State University

of New York at Buffalo) was brought in, as he has put it, to "legitimize the experiment and develop testing procedures."

The results were almost entirely negative by any "statistically significant" measure. The final report took what comfort it could from the fact that "while the program failed to achieve a significant transference of skills to the three R's, it generated an excitement to learn for many, and the arts became a meaningful incentive for them to succeed in school." Looking back at the project, Cohen, who is a disciple of B. F. Skinner and Buckminster Fuller and calls himself an "educational ecologist," doesn't bother with any such rationalization. His judgment on the experiment—discounting the characteristic Cohen bravura and irreverence—echoes reasons often given for failure to establish transfer:

> You can't just inject the arts for a summer and expect lasting results. It's like alcohol; it wears off, it needs constant reinforcement. In fact, some of the kids who stayed home and bought beer for their parents learned more. Creative arts are a language; they must be taught from the very beginning and reinforced constantly. Sure the kids learned to sing, dance, build; there was an increase in concentration span and a decrease in disruption. Kids took pride in their skills as a result of teacher and peer reinforcement. And one very interesting thing—although the children didn't make gains in academic skills, the student interns involved in the program did!
>
> I still believe, as the final report on that OE project says, that there may be no need to circumvent the major issue by relying on the arts as the medium for learning when direct action is possible. You have to look at the whole grid.

METHODS

In the curricular projects that stressed pedagogy rather than content, music came out well ahead of the visual arts both in the range of projects and, it would appear, depth. On the other hand, the AHP's sampling suggests that music education is especially susceptible to trendy influences such as programed and computer-assisted instruction (CAI). Perhaps this is because music requires so much precise technical knowledge.

Music.—Altogether 10 projects were mounted that investigated technological instruction. There was, for example, Victor Lund's "Evaluation of Electronic Self-Instruction on Piano Keyboard." Lund's disappointment in the outcome derives not from defects he now sees in his study's design or effectiveness but from the reaction of his college's music department—"animosity and inertia, passive cooperation and passive resistance" to the efforts of a "foreigner" (Lund is a media man). Austin Andrews, on the other hand, who developed a basic course in music theory using self-instructional materials, deprecates his old project for its slighting of creativity: "The whole idea of programmed instruction in music has serious drawbacks, and today's students just won't accept this method of learning."

The most elaborate of the CAI projects was the study made by William Kent, of System Development Corporation, "to determine the feasibility, infeasibility, or deferred feasibility of adapting a CAI system to an existing nonautomated program for providing keyboard experiences to elementary school children." Findings were generally negative, if only for economic reasons. An important negative conclusion: "The 'grammar' of music (notation, for example) is, of course, directly susceptible to [the kind of interaction that can be effectively carried out with typewriter or TV-like terminals.] But the grammar is only a symbolic representation of what must be (if it is to be of musical value) an aural experience that lies largely in the aesthetic domain."

On the whole, as in most such experiments in other fields, the findings were positive in that students learned at least as well through PI or CAI as through conventional methods, but there was evidence of student boredom or disaffection with the impersonality of it all. A noteworthy project in

this general category was a series of studies carried on over a 10-year period by Charles L. Spohn, then an associate professor at Ohio State University's School of Music. (Dr. Spohn is now dean of the School of Fine Arts at Miami University, Ohio, and chairman of the Council for Research in Music Education). Initiated with close to $150,000 funded by title VII of the National Defense Education Act,* the Spohn project concluded with a $78,777 longitudinal study—one of two such AHP grants in music education, the other being Robert Petzold's. This was the purpose of the study: "To test and evaluate a clinical type of instructional program based on individual differences in such a manner that diagnoses can be made and the individual's music ailments can be treated in learning three basic music elements [rhythm, interval, tone group]." Procedures took advantage of the earlier Spohn investigations of auto-instructional methods.

The results, among other things, systematically documented that venerable truism of American education, honored more in rhetoric than in practice: the importance of adapting instruction to individual differences. In a way, the outcome of these studies provides a musical analog to the conclusions Kenneth Beittel reached in his drawing experiments.

Dr. Spohn today feels good about his AHP work and believes the findings still hold up. Three programed texts dealing with the study of intervals were published and are in wide use. The Spohn studies also generated further work in the field, and encouraged other researchers to develop or refine concepts of programed learning. Apparatus modeled on the language laboratory, which was set up at Ohio State University for the Spohn studies and was the first of its kind in the country, is now standard equipment in most college music departments.

If technology provided the main theme of the music projects dealing with methods of teaching, another predictable emphasis was adapting world-famous teaching methods (such as Kodály's and Orff's) to American education. Robert Glasgow, while at the Oregon College of Education, undertook a study of the "Schulwerk" techniques developed by the German composer and teacher Carl Orff, whereby children's ability to sing and read music is nurtured through bodily response to rhythm and performing on simple instruments. (By 1965, a number of American schools were already using the Orff approach, but the new study did not delve into this experience.) The findings of Dr. Glasgow's

*This title also funded a few other AHP projects, including those in media research.

modest investigation were both positive and negative: yes, the method was adaptable, but whereas the pilot students improved in two of the four skills involved, there was no *measurable* indication of positive growth in their attitude toward music. Glasgow, now retired, regrets that various constraints, notably the time- and money-consuming requirements for testing, limited the value of his project, which he would have liked to continue under what he considers the most desirable conditions: combining the Orff techniques with others such as Kodály's. According to Glasgow, "testing really doesn't tell the truth." Most of the 180 children *did* respond positively, he recalls, but this kind of response "just can't be measured objectively in tests."

The Kodály project was far more ambitious—AHP's share (close to $100,000) in 1969–70 bridged the interval between two grants from the National Endowment for the Arts to Alexander Ringer, professor of music at the University of Illinois. The general idea was to find out how Zoltán Kodály's methods of enhancing musical literacy in Hungarian primary schools might be adapted to the training of musically gifted children in American elementary schools. The endowment grant had provided funds for the immersion of 10 American music teachers in Hungarian musical culture, more specifically schools that used the Kodály approach. The AHP money enabled Ringer to place these teachers upon their return in three middle-sized cities—Wichita, Kans.; Greensboro, N.C.; and notably New Haven, Conn., where the school climate was particularly favorable and where, in the wake of the second endowment grant, Hungarian-trained teachers would make up some 30 percent of the school system's music specialists. The program as a whole had its share of unexpected problems, ranging from political crises in Europe to such local contretemps as the departure of a sympathetic superintendent in New Haven and the suspicions of the city's blacks that they were being singled out for a "special program."

But Dr. Ringer's enthusiasm still continues high, despite the near drying-up of Federal or local funds. It was buoyed in 1975 by a Ford Foundation grant of some $80,000 for a special New Haven Kodály Fellowship Program, which enabled another group of teachers to go to Hungary during 1975–76. "My girls in New Haven are doing such a good job," he said not long ago, "that I'll keep trying to find ways and means of supporting them." Meantime, he has completed materials for the primary grades and hopes to publish a book based on his sponsored work to be called "Education Through Music." Some years ago, when Leonard Bernstein voiced some reservations about the original National Endowment for the Arts application, Ringer, a man of strong conviction, parried Bernstein's observation that what was needed was an explosion in the schools, whereas the Ringer project was no more than a drop in the bucket, with the remark: "Let's not talk about water. Let's talk about fire. Let me strike a match, and maybe if enough of us strike matches our young people will explode. They are explosive." His confidence in young people and their ability to survive "the system" is boundless.

A third big and influential project, for about $210,000, took off from the techniques of the Japanese music educator Suzuki, whose all-string orchestras are famous. Paul Rolland, professor of music at the University of Illinois, developed and tested a 2-year program of instruction in string instruments, after he had made a filmed demonstration of the Suzuki techniques. The "string problem" has been endemic to music education ever since the precipitous rise in wind-instrument playing that followed the Great Depression. Professor Rolland's hypothesis was that it would be possible to improve both the quality and pleasure of string playing by treating it as an or-

ganic unit, by freeing the body from static tensions, by, in short, stressing the Gestalt quality of good violin, viola, or celio playing. The project concentrated on developing elementary school players over 2 years, plus summer courses for secondary school students. Materials, including recordings and films, were prepared. Professor Rolland believed, however, that his adaptation of the Suzuki tension-free mode of string instruction could be applied to students of any age, and the history of his 200 clinics and workshops in the past 10 years all over the country would appear to bear him out. A byproduct of the Rolland work was the production by well-known composers of good teaching pieces.

Art.—Though the visual arts projects dealing with modes of teaching were generally limited in scope, an exception was Bartlett Hayes's "Education Through Vision" project, an ingenious effort to improve general learning through two- and three-dimensional visual training of teachers and students. In toto, including evaluation by Educational Testing Service under separate AHP grants, it cost more than $128,000 with generally inconclusive results. (Once again, the will o' the wisp "transfer" eluded the pursuers.)

Robert Clements undertook three projects, at Penn State and then later at Ball State University in Indiana, two of them in collaboration with Pete Carr, assistant professor of art at Ball State's laboratory school. (Dr. Clements is now associate professor of art at the University of Georgia.) The first, his doctoral dissertation for which Kenneth Beittel was advisor, dealt with the relative effectiveness of different kinds of questions used by art teachers at various levels from first grade to college. According to Clements, this was the first such *empirical* study, contrasting with the general run of art-education research that had been "concerned mainly with general methods and dynamics of creativity and personality." The chief discovery said little about questions but a lot about teachers. The study revealed general indifference on the part of teachers to any answers their questions invoked, and corresponding small regard for students' opinions. Clements says that this depressing finding still holds today. Subsequent doctoral work has produced virtually the same results.

The Clements-Carr projects, which like the dissertation were funded at less than $10,000 each, tried to correlate students' art work with certain aspects of instruction. In assaying the relative effectiveness of three motivational methods (media, subject, and the two combined) for elementary

school art pupils, the researchers were trying to resolve empirically certain theoretical differences between Victor D'Amico and Viktor Lowenfeld. Findings, in brief: for first graders, anything goes; for second, third, and sixth graders, subject-matter motivates best; for fourth and fifth graders, media. When in doubt, the final report suggested, use a combination. In effect, it ended in a draw for D'Amico (media) and Lowenfeld (themes), and substantiated certain stages in Piaget's analysis of child development. As for Clements' third study (which Dr. Carr believes produced the most important findings), the idea was to discover connections, if any, between the quality of sixth graders' art work and specific social, economic, and motivational factors. Two classes of "culturally advantaged" children and two classes of "culturally disadvantaged" children worked variously with either expensive or "found" materials, motivated by either fantasy or realistic themes. Findings (some of which will surprise many a teacher in settlement houses, community arts centers, and inner-city schools): "Greater art quality, craftsmanship, and originality were produced by the use of expensive materials, by fantasy motivation, by students at the culturally advantaged school, by girls, and by academic high achievers. The low-budget art programs considerably diminish high-quality art performance and enjoyment."

Two projects sought wisdom from the words of artists. Both were supported by grants under $10,000. John Michael, professor of art education at Miami University, Ohio, undertook to "isolate concepts and values held by well-known practicing artists concerning their work in painting (including drawing), printmaking, sculpture, pottery, jewelry, weaving, and enameling." Of several hundred artists queried, most of them well-known, close to 65 percent responded, and the results were analyzed and tabulated for their potential usefulness to secondary school art instructors. The wide variety of responses to the dozens of questions—ranging from the importance of childhood experiences and what makes an artist to such minutiae as turning a picture upside down during the painting process and what constitutes the best working place—was read by Dr. Michael as further proof of "an individualized approach in art education." Though the results were not tested in schools, they did form the basis of a handbook published in 1970, which is used in two courses at Miami.[2]

Karl Fortess taped a series of interviews with 79 American artists on problems of professional concern, to be used by university students and faculty. The questions, like Dr. Michael's, covered a broad range of topics. The reaction of 150 art students who initially listened to the tapes indicated that the interviews not only provided information but also stimulated further experience and insight into the students' own artistic problems and prospects. Fortess, now retired, has expanded his interviews to over 250 with help from the National Endowment for the Arts and from his own university, Boston. The interviews are available at the university in both cassette and reel-to-reel form. Students like them, it appears. "They have a tremendous curiosity about artists and little curiosity about their own teachers," Mr. Fortess says, "even though the teachers may be better artists."

William Huff's project was *sui generis*. Its official title, "Uses of Symmetry in Design Education," suggests little of its oddity and intentions. Huff, then teaching architecture at Carnegie-Mellon University, was attempting nothing less than to bridge C. P. Snow's two worlds in his particular field; namely, to present beginning design students with visual translations of the complex structural abstractions of the mathematician K. L. Wolf. Mr. Huff, who had been working at the Ulm School of Design in Germany, brought back Ulm's modifications of the

Bauhaus basic design course, including the mathematical concept of symmetry. It was his goal to make this knowledge accessible to the design student, on his terms.*

The net result, by 1974, was what Mr. Huff calls a "primer," six slim booklets handsomely designed, containing "a minimum of text with a maximal richness in visual imagery."[3] The OE grant paid for researching these booklets, a mock-up of the complete set, and printing of one section. Huff ran into funding tribulations, but eventually grants from the Mellon Foundation and the National Endowment for the Arts, mid-1974, funded publication of all but one section. Meantime, Huff had scored some success introducing his material to the student bodies and faculties of various universities, including Yale, Harvard, Princeton, and New Mexico, as well as other institutions in Canada and Europe. The work had been acclaimed by such notables as the late Louis Kahn. Huff, now teaching in the School of Architecture and Environmental Design, State University of New York, Buffalo, plans to introduce his primer into high schools, where he feels it might have great effect. His target is students, rather than "highly intellectually formalized instructors."

Other Fields.—As for the *how* of teaching in other fields, the multimedia project called MATCH (Materials and Activites for Teachers and Children) was a standout in museum education. This project was an elaborate and highly sophisticated venture, funded mainly under title VII of the National Defense Education Act (NDEA). MATCH was devised and directed by Michael Spock, director of the Children's Museum (Boston, Mass.) since 1962, and by psychologist Fred Kresse. The MATCH boxes are not matchboxes, but are sizable kits. These kits—sometimes 2 or 3 cases per "box"—weigh from 30 to 100 pounds each. They contain a great variety of materials related to a given topic of study, and are designed to be used either 1 hour or 90 minutes daily for 2 to 3 weeks by a teacher and 30 children.

The 16 original study topics ranged from animal camouflage to medieval people to musical shapes and sounds (about half were related to the social sciences). Though the prospective audience was students from kindergarten through high school, most MATCH collections were aimed at children in the upper elementary or intermediate grades. After testing in Boston schools and intensive development, these kits (now totaling six) are being produced

*The "inverted seashell" on the cover of this report is the work of one of Huff's design students from Carnegie-Mellon University (see credit, cover 2).

and distributed commercially. In 1972 the American Institutes for Research included the MATCH program among 20 winners in their search for programs "which evolved from educational research and gained acceptance in schools in recent years." [4]

A few years ago MATCH was 1 of 10 projects that toured the United States in an OE-sponsored mobile van and visited teacher workshops. MATCH was the only project in any way concerned with the arts. As it happens, MATCH's relation to the arts goes deeper than its museum base, its use of such art forms as film, photography, and recordings, and its occasional bow to the arts in topic choice (music, poetry). Whereas it stands as one model of effective museum education, its broader import for the cause of the arts in education is MATCH's emphasis on nonverbal learning and the integration of the nonverbal and the verbal—i.e., in the importance of the *affective* component of learning. The original proposal to OE stated, in part, the problem and the purposes of the project thus:

> Much of learning is non-verbal. Instead of being mediated by words it is mediated by things. Because they lack time and money, most teachers . . . do not possess the vocabulary of things they need to communicate effectively with their pupils. And so certain crucial experiences never occur in the classroom, others occur only partially, while still others are so abstracted that distortion sets in. The result is that some things are not learned at all, others only superficially, and some are probably mis-learned.
>
> This lack of appropriate media with which to convey knowledge and to develop skills and attitudes is particularly acute at the elementary level where the proportion of non-verbal learning is high. A non-verbal fact, such as the warmth felt in an Eskimo parka, may be conveyed by a single object or medium—in this case the parka. But patterns of media and activities are usually required to communicate non-verbal principles, concepts and relationships. . . . Though many media are recognized as valuable in furthering the dialogue between teacher and learner, very little is known about how to combine them for this purpose.
>
> The problem, then, is to find out how to combine media in a way that will permit teachers and students to communicate with each other on topics having a high proportion of non-verbal content.

Inside the MATCH Boxes

The 16 original MATCH boxes contained many kinds of things, including these:

Real objects: 2,300-year-old Greek pottery shards, chopsticks, navigator seeds, starfish, whale's tooth, Algonquin arrowheads, seal skin, beaver-chewed log, stuffed owl, old purse, Netsilik bow drill, clarinet, lead type, deerskin, bones, steel drum, harpoon, map measurer, pumps, syringe, buckets, mops, hammers, goggles, pipes, funnels, psaltery, stethoscope.

Reproductions: falconry lure, medieval clothing, Japanese photo album, Greek coins and statues, Indian leggings.

Models: city buildings, igloo, mud house, lock model, birchbark canoe, sea ice at Pelly Bay, folding rock strata, figure "4" trap.

Films: filmstrips, film loops and slides and photographs of almost everything.

Recordings: a Netsilik woman telling a story in the Eskimo language, a medieval shrew recounting her experiences at court, bird calls, songs of the voyageurs, reminiscences of a Great Lakes captain, an Eskimo myth, an Algonquin's dream.

Equipment: tape recorders, various projectors, screens, extension cords.

Software: charts and diagrams, floor plans, worksheets, maps, bird stickers, sort cards, word cards, recipes, student guides, character books, reference books.

Supplies: cinnamon, olive oil, seal oil, geodes, dry mud, cranberries, ink, paper, chemicals, diorama kits, soapstone, magnetic tape, parched corn.

Further, the developers have said: "A MATCH Box—in its fullest sense—is not the sum of its media, objectives, and activities. It is not a thing. It is more truly the experience, the happening, that occurs when the children and teacher encounter the Box." So the project stresses the play of spontaneous and chance conjunctions of mind and matter.

Another far less elaborate (title IV) project based in the Children's

Museum was Elizabeth Nicol's "Development of Validated Museum Exhibits." According to Richard Grove, then AHP's museum-education specialist, now director of the Henry Art Gallery, University of Washington: "This highly important project is still not widely appreciated, but it will be." The difficulty, according to Grove, was both the technical intricacies of the exhibit plan and the specific subject matter (animals' teeth). The point here was the *process* of museum exhibition developed and substantially validated. In brief the $49,000 grant established that "highly significant" gains resulted (pretest to post test) from engaging children actively in "the collaborative venture of testing and improving the exhibits." Though the experimental design was drawn in scholarly fashion from contemporary learning research, all of it including the tests was made to seem like a game to the young visitors. The result was happy for them and conclusive to the experimenters.

WHAT TO TEACH

In projects focusing on the *substance* of curriculum, grants in the visual arts contrast markedly with grants in music. Again the music yield on the whole was richer. In both fields there were sizable disappointments.

Art in the Curriculum.—Related to the improvement of the art curriculum were projects in museum education. Even though the museum in question might be geared to science, it was assumed that an effective educational program could provide an adaptable model for an art museum. A sampling of the visual arts projects will suggest their variety as well as their limitations.

A college curriculum for the use of glass in fine arts was developed by Robert Willson, a well-known sculptor in glass. Based on extensive investigations here and abroad, Willson came up with recommendations for a 5-year, federally supported program to make up for the comparative American neglect of this medium. Today, Mr. Willson is unaware of the creation of any college laboratory or department for teaching solid-glass art along the lines his report suggested. Yet he is far from feeling his project a failure. It made possible, among other things, a Miami exhibit of international glass sculpture in 1973—"the most important and largest showing of fine art in glass in this century, in Europe or America."

Then there was Ronald Silverman's development and evaluation of "art curricula specifically designed for disadvantaged youth." The primary purpose of this study was to find out how art education might best be conducted so as "to effect productive changes in

perceptual, cognitive, and attitudinal styles and art aptitudes of disadvantaged youth." Dr. Silverman's experiment, carried out with the full panoply of controls, pre- and post-testing, and teacher preparation, tended to reinforce Harold Cohen's interpretation of his Washington, D.C., project. Amidst a welter of findings, some of them contradictory, Silverman found this the salient point of the study: "It is the art teacher who is the key to bringing about behavioral changes in disadvantaged learners and not art, *per se*." The Los Angeles study demonstrated, he unequivocally avers, "that the assumption—that art education practices are profitable experiences simply because of their concrete nonverbal nature—is erroneous."

Music in the Curriculum.—By contrast, music education fared much better than art education in AHP's curriculum grants, and not just by the numbers. One reason, if not *the* reason, for the relatively large number of substantial projects was unquestionably the Yale seminar and its recommendations. Of the dozen or so curricular projects in music education inspired by Yale, the following provide a fair sampling.

Kenneth A. Wendrich of Yale, joined by Dr. Palisca himself, worked on a study, known as the Yale Music Curriculum Project, which had as its goal the development of musical understanding in secondary school students. It was modeled closely on recommendations of the Yale seminar and, without denigrating the pleasures and importance of the ubiquitous school band, orchestra, and chorus, sought to compensate for the ineffectiveness of sheer group performance by developing an "understanding of, and familiarity with, music as a form of man's cultural heritage."

The new curriculum, comprising eight units, was designed to stimulate the listening capacity of the secondary school student through his recognition and analysis of musical genre form—to expose him, in the words of the ERIC abstract, to "an academically respectable music-literature course." Materials, including tapes, visuals, and a teacher's manual, were tried out in about 20 schools. The units were a great success at Yale as Music 11. Prentice-Hall planned to publish the substance of the curriculum in self-study manuals for students in late 1977.

The first project to evolve from the Yale seminar was the $308,000 Juilliard Repertory Project, proposed by a seminar participant. This enlarged repertory, for kindergarten through grade six, responded directly to a seminar condemnation of the traditional classification of repertory by age groups—"a dangerous procedure because of the perennial habit of adults to underestimate the capacities of children." The late Noah Greenberg of the New York Pro Musica had been one of the most eloquent seminar voices in denouncing the standard school music repertory for its "appalling quality," limitation in scope, corrupt arrangements, banality, and stultifying effect on children.

The "Juilliard Repertory Library," published in 1971, is strong not only in neglected classics by Bach and Beethoven and other Western masters, but also in non-Western music, early Western music, and neglected forms of jazz, popular, and folk music.[5] The project directors take particular pride in the Library's component of contemporary music: it includes among the 230 entries no fewer than 65 new works written especially for children by outstanding composers. Irving Lowens, a member of the repertory panel, concluded an enthusiastic newspaper review of the Library by assessing the main achievement of the Juilliard project as "not . . . the corpus of excellent music it has made available to the profession . . . [but] rather, its clear demonstration that even in this fragmented day and age, such natural-born enemies as scholars, composers, performers, and educators

can really work together and accomplish something."[6] A fine case in point is that, despite initial apprehensions, the chief organization of the music-education fraternity, the Music Educators National Conference, became one of the project's staunchest backers. In 1975 Canyon Press, publishers of the Library, made 6,500 sets available to schools at no cost beyond handling, as a Bicentennial gesture. The schools in turn have made tape recordings of repertory selections, the best of which will be given special recognition and offered to the Voice of America and other outlets for broadcast.

Other projects inspired directly or indirectly by Yale display, like the seminar, a remarkable range. Vada E. Butcher of Howard University received a grant to develop materials for a 1-year course in African music for the general undergraduate, later expanded to four related courses, some of them adaptable to secondary schools and inservice teacher training. One substantial result was the creation by Howard of the Center for Ethnic Music, funded for 4 years by the National Endowment for the Humanities; when this funding ends, the university will pick up the bills.

According to a 1976 assessment of funded research in music education, by Charles Leonhard and Richard Colwell of the University of Illinois, a project with "long-range effects" was Bennett Reimer's general music curriculum, "which resulted not only in an influential final report but in a new technique for teaching music appreciation."[7] Under a $50,000 grant, Reimer, music professor at Case Western Reserve University, developed and tested a 2-year curriculum in general music for secondary schools, in line with the Yale seminar recommendations. "The major conception of the course—that music is a means for exploring and understanding human feeling—recurs throughout the material in progressively more sophisticated settings," in the words of the author. The palpable output was a course syllabus and instructions for using it.

The trial of the course in three junior and three senior high schools led Reimer to conclude that the course is "teachable, learnable, and effective in its goal." He is impressed by the extensive use he has observed of this curriculum (although, as is usually true, he has no hard evidence of the actual extent). To him the best proof of the validity and success of the project is that the curriculum has been picked up by one of the most enterprising of the big textbook publishers, Silver Burdette.[8] In his view, "getting your stuff into textbooks is what counts over the years—far more influential than at-

tempted reform of monolithic teacher education, which has changed very little in 15 years." Though he comes across as a gadfly, Bennett Reimer is a card-carrying member of the establishment: he has belonged from the start to the Council for Research in Music Education, edited the council's bulletin, and served on MENC's Music Education Research Council.

Meanwhile A. Oren Gould, who recently retired from Western Illinois University's department of music, developed specialized programs for singing in the elementary school. The objective was not, like Dr. Reimer's, to develop a new curriculum but rather to revitalize singing in the school experiences of young children. The project led to a book, "Teaching Children to Sing," published in 1972 and used in some universities.[9] Dr. Gould feels much as he did when he completed the project in 1968: that "problem singers" of mature years might never come to be if singing experiences early in life had been favorable. His book, like the project, is built around ways the elementary school classroom teacher can work with children to provide such experiences. And he believes, with evidence from his own observation, that his singing techniques can fit happily into any type or combination of overall music-education programs—Kodály, Orff, Manhattanville, or whatever.

Like the Yale people and Dr. Reimer, Neal E. Glenn, at the University of Miami, and Robert Glidden undertook the development of a music-literature course for high school students, complete with classroom evaluation. Dr. Glidden, until recently executive secretary of the National Associations of Schools of Music and Art, looks back on this project with no great self-congratulation. The final Glenn-Glidden report stated as perhaps the most significant result of the study "the realization that such a course can be taught on the high-school level, and that students are interested in and challenged by music literature as 'a serious subject for study, on a par with the literature of the language'." However, no positive gains over control groups were registered by testing for "stylistic recognition of musical achievement," nor for growth in general musical achievement. The curriculum was used in followup studies and some teachers used it for 3 or 4 years after the project ended. Conceding possible flaws in the testing instruments, Glidden, now at Bowling Green State University, would design the course differently today and, among other changes, would broaden the content beyond Western music.

How best to develop junior-high "musicality" (one of many disputed but hard-to-replace terms in arts education) was the subject of a $92,000 study by George Kyme, Berkeley (Calif.) music educator. The particular focus was the role that original musical composition might play. The study attacked obliquely if not head-on that hardy 'tis-tain't among music educators: how good, or bad, is the prevalent school emphasis on performing groups? Dr. Kyme, by focusing on composition, presumably ranged himself on the side of the angels (hypothesizing a major Yale seminar theme).

The outcome of the study was mixed, but afforded small comfort to the exponents of composition as a prime goad to musicality (defined by the researcher as "the ability to grasp a musical idea in its totality"). More than 3,000 students in 9 junior high schools provided the sample, were pre- and post-tested, and were divided into a number of categories (e.g., those taught composition, those in various kinds of performing groups, those taking guided listening or music-reading classes). Chief findings: "Analysis of data, school by school, revealed that musical composition is most effective at higher socioeconomic levels, though instrumental performance is the most universal effector. The guided listening program was not productive for schools classed as culturally deprived. Music reading was the most effective

learning tool for the lower socioeconomic schools."

Disappointing results emerged from another study dealing with junior high music. A 3-year project entitled "Musical Ability Utilization Program" spent over $100,000 in Federal funds and more than twice that in local funds to "determine the nature and extent of academic and motivational change in low-achieving junior high school students with some talent in music who participated in a special music training program." One hundred students in 5 schools at the start (only 42 in 4 schools at the end) were assigned at random to experimental or control groups. Each experimental student studied voice or instrument as a music *major*. The outcome: "No significant differences existed between the experimental and control groups with regard to scores in reading, arithmetic, and study skills; grades in language arts, social studies, and mathematics; teacher ratings or attitudes and behavior; or attendance." Some small solace came from interviews with 46 students, which indicated that "participation in the program led to personality improvement, stimulation to study, and a more meaningful attitude toward school." Once again, "transfer" didn't prove out.

In 1968, a $92,000 grant enabled Thomas Vasil, a music teacher in the Lexington (Mass.) public schools, to undertake nothing short of the improvement of music education kindergarten through college. His intent was "to make the carrying on of music education on all levels more efficient by using a more meaningful system of transmitting the complex symbolic language of music via transparencies in overhead projection, eliminating long, tedious, unclear, and incomplete information presented via limited blackboard space." (Thus the research, credited by the author to the Yale seminar as one source of inspiration, also belongs with the music-education research built around technology.) The project, which embraced three summer conferences dealing with audiovisual music materials and 2 school years of trial and evaluation, reached this conclusion: "The use of non-book instructional materials is an effective means of improving music education, but the misuse of such materials will almost as certainly cause harm; a multimedia approach has its greatest value in allowing for variety of presentation modes."

A spectacular $221,000 music project was a success as far as it went, though the project mounted by the famed Interlochen Arts Academy in Michigan was essentially professional in focus and its findings were never, as the proposal envisioned, made adapt-

able to students from kindergarten through college. What the Interlochen Honors Musicianship Project did accomplish, however, is worthy of note. "Based on the belief that composers, conductors, and music teachers should know how to play all major symphonic instruments, thirty-three superior students were selected for this intensive forty-week program," to quote an official summary. "By thirty-two weeks, each student demonstrated his success in tape-recorded sessions requiring the playing of each instrument in succession." The teenaged, precollege students were all motivated by a desire to make music their profession. In a way, the highly competitive, rigidly structured "Class Routine" techniques created by Interlochen's founder Joseph E. Maddy (who devised the AHP project but died before its completion) are *one* American answer to Suzuki and other famed foreign techniques. Harold Arberg delights in explaining what Dr. Maddy meant by competition—what "Black Friday"meant and still means for the young virtuosos:

> Each Friday was set aside so that all members of the orchestra had an opportunity to challenge the player one chair ahead to perform any excerpt of his or her choice. The challenger, who of course had practiced the particular excerpt, also played it. If the other orchestra members voted in favor of the challenger, then he immediately exchanged seats with the person ahead of him.
>
> The object was to defend one's own position and, at the same time, move up a chair at a time to become if not concert-master then principal member of the section. With this kind of competition and constant striving, the students had an enormous repertory. And judgment by one's peers eliminated the often arbitrary decisions of conductors.

Of all the Yale-inspired projects, the most ambitious by far was Ronald Thomas's Manhattanville Music Curriculum Program (MMCP), named after the institution that provided space and encouragement for the project.

Thomas began the project while concurrently directing music education in the public schools of Nanuet, New York. He had been one of the Young Turks at the Yale seminar. The MMCP project, funded at $465,000, grandly proposed the development of a "music curriculum and related materials for students from the primary through the high school years," plus the preparation of "effective means for the training of teachers to use this curriculum." In the introduction to his final 1970 report, after summing up the parlous state of most music education, he wrote: "The MMCP set out to create an alternative for music education."

An earlier grant, in 1965, had enabled Thomas and his associates to spend a year studying "unique and experimental practices in music education." And they found some worth study. Out of 132 schools in 36 States recommended by officers of MENC divisions, professional periodicals, State supervisors, and others, Thomas and his associates eventually chose 15 for further study. Thomas paid these unheralded experimenters their due, while at the same time deploring their limited impact. As the final report on the MMCP project itself so emphatically proclaimed, exciting and laudable as these isolated projects were, they were indeed exceptional. In most places, "music education was a straitjacket where everyone was expected to do, be, think, respond, learn, hear, accept, reject and act in the same way." This deplorable rigidity was found to be true in every part of the country, from primary school through college. The "monolithic system to program people to uniformity of perception" was woven of such strands as these: 1) almost universal emphasis on finished products and computational systems; 2) standardization of the compositions used in education, as well as the analytic systems; and perhaps worst of all 3) utter standardization of musical values, where everything was either right or wrong, good or bad.

The efforts of reformers, whether directed to the social and political system, or economics, or education, are proverbially strong in their excoriation of the old, but comparatively weak,

vague, and unconvincing in their invocation of the new. This charge could hardly be leveled at Ronald Thomas, though some might cavil at the applicability of his sweeping proposals to the real world of schools and teachers and administrators.

Thomas's 1970 report to the OE—a 300-plus page blockbuster—eschewed vague generalities and pious ideals. Instead it hammered out formidable and detailed prescriptions for a metamorphosis of America's conventional ways with music education, with an emphasis on student composition and improvising, and the use of contemporary music and nontraditional instruments. The major *product* of the Manhattanville Project was the "MMCP Synthesis," a comprehensive curriculum for grades 3 through 12 (but product is subordinate to philosophy in the Thomas canon).[10] The grand scheme spelled out, in addition, plans for an early childhood curriculum ("Interaction") and produced three feasibility studies: the "Electronic Keyboard Lab," the "Science-Music Lab," and the "Instrumental Program." And more besides: plans for college curriculums and for teacher re-education. Recognizing, however, that "education is not materials, it is ideas that are in constant growth," the Thomas report cited the involvement of hundreds of music educators and other teachers in workshops and inservice programs.

Whether one regards all this as an impossible dream, a premature blueprint of what music education with flavoring winds could one day become, or a desecration of the old order, it would be hard to fault the energy, specificity, and imagination that went into the project's plans and recommendations. Even if read only as an exercise in expounding music's endless horizons, what Thomas's prospectus held forth deserves any musician's or music teacher's attention for its provocative ideas. Every programmatic breakdown, for instance—from the "Synthesis" to "Teacher Re-education Plans"—is replete with unconventional bibliographies, discographies, and precise and novel instructional suggestions. Page after richly filled page of the "Synthesis," for example, graphically documents the spiral curriculum—"an open-ended and flexible organization of concepts that focuses on the interaction and relationships of concepts, factors and elements."

It was indeed the idea of the spiral curriculum and all it entailed (an idea celebrated in those days, notably, by Jerome Bruner) that inspired Thomas, and the underlying concept of the seamless fabric of learning: that "intellectual activity anywhere is the same,

whether at the frontier of knowledge or in a third-grade classroom," to quote Bruner. Thomas was fascinated by the mathematicians he encountered whose ideas of curriculum reform, based on this concept, so paralleled his. "Essentially what MMCP did," said Thomas recently, "was to get back to what music is and what musicians do. The idea is that in music one learns by doing, that what students should be doing at any level of growth should be consistent with what musicians do."

The importance of MMCP, therefore, as Thomas sees it, is in its philosophical and humanistic base. "We were interested in seeing whether a real alternative could be created, whether the nature of what you do—the rationale—produces a different end product." Thomas accordingly discounts MMCP as method or product, though gratified that the "Synthesis" was reprinted twice and distributed in many languages. ("It wasn't copyrighted, portions were reproduced everywhere.")

After completing his OE-sponsored project, Thomas received a $137,800 grant from the National Endowment for the Humanities for a 2-year program in 12 colleges and universities.

An informed judgment on the ultimate impact of Thomas's would-be reforms was made in June 1976 by Leonhard and Colwell:

> Among the USOE grants [in music education], the Manhattanville Project of Ronald B. Thomas attracted the most publicity and received the greatest attention due to its radical departure from traditional modes of school music instruction. Through numerous demonstrations at conventions and workshops, the Manhattanville scheme has had a genuine impact on the procedures and goals for music at every educational level, though its complete adoption has occurred in only a limited number of situations.[12]

To Thomas, now chairman of the department of music at Virginia Commonwealth University in Richmond, these ubiquitous workshops are a marvel. "I still see notices of MMCP workshops," he said in 1976. "I don't know what they are. I have never met the people. A recent MENC conference offered two MMCP sessions. I had nothing to do with them, but I attended. It was fascinating. The seminar leaders had interpreted MMCP within the context of their own needs and concepts. The important thing is that they were doing something and moving ahead in a rational way. Anyway, nothing should live forever."

Other curriculum development.—Broad-based curricular projects involving a number of arts or "aesthetic education" produced their share of disappointments. One was a 1-year, one-shot effort to create a secondary school arts curriculum that would be included in the so-called ES '70 program (Educational Systems for the Seventies)—a massive Federal program that fizzled out. Its goal was to install curriculum innovations in all

Manhattanville Project: Musicality

"You might have used more variety in the dynamics and the choice of timbres didn't seem to suit the melodic line too well."

A music professor commenting on a student performance you say? Try again. Would you believe a third grader named Mary who is criticizing a performance by her classmate Jimmy; and further, that Jimmy has just finished conducting a small group of his peers in his own musical piece which he has written and rehearsed? It is all part of the early schooling phase of the Manhattanville Music Curriculum Project. . . a major effort to help meet another of the goals identified at the [Yale] Seminar, namely the development of "musicality."

MMCP has involved several hundred teachers, a variety of school systems, and numerous colleges in its development of new materials and teaching strategies. [It] has developed a spiral curriculum in which essentially the same fundamental musical concepts are explored at each stage of the student's development, and in terms of what is necessary and meaningful for the student at that time. Kids are encouraged to write (as best they can) and perform their own music from the earliest years. Submitting to the criticisms of their peers as well as the teacher is an important aspect from the start, with the teacher functioning more as a "senior scholar" studying and learning about music with the kids."[11]

Harold Arberg

fields in a network of 18 school districts across the country. Another project, which proposed to integrate "arts and humanities understandings" into the regular New York State curriculum, operated for 3 years in 13 ninth grades, from the Bronx to the Niagara frontier. Despite the preparation of guides and "resource collections," the experiment virtually ended with the end of funding for the demonstration schools. Small vestige remains of the high-minded plan to bring "the moral, spiritual, aesthetic, and intellectual benefits of the arts and humanities to all students in all schools without the necessity for great expenditures of time, energy, and money; drastic curriculum change; or extra personnel."

The only important overall curriculum project in aesthetic education was important, less in itself than in its connections and ultimate effect. Entitled "A Program of Curriculum Development and Research in Aesthetic Education," it was an effort to "present a rationale and plan of action for long-term R. & D." The $66,493 grant was made to the late Manuel Barkan at Ohio State University. This study and Barkan's determination did much to spur CEMREL's Aesthetic Education Program, which was inaugurated in 1968. CEMREL had been established in 1966 under the Cooperative Research Act, as amended by ESEA title IV, as one of 20 regional educational laboratories; it is the only one still functioning that made the arts in general education a prime concern.

CEMREL, operating out of an imaginatively recycled hospital near St. Louis, has become an important national center of educational research and development. A private, nonprofit corporation, it is supported largely by Federal funds, first from OE, now from the National Institute of Education. Besides aesthetic education, CEMREL runs three other major programs (early childhood education, instructional systems, and mathematics). Other than the planning grant to Barkan, AHP played no direct part in funding the Aesthetic Education Program, which is engaged in building an ambitious K-12 curriculum dealing with all of the arts in general education. The immediate outcome of intensive and wide-ranging research is the so-called learning package, 10 of them to be developed for each instructional level. Indirectly AHP has helped to stoke CEMREL's progress. As will presently be seen, CEMREL conducted AHP's biggest evaluation project, and the two staffs, past and present, have worked closely together. Stanley Madeja, who directs the Aesthetic Education Program, was art education specialist at AHP in the late sixties.

As for dance education, projects ranged from a collection of gypsy and other ethnic dances ($7,845) to an ambitious "Comprehensive Graded Curriculum in Dance Training for Secondary Schools" ($195,074). High hopes for this project were never realized. The curriculum, far from providing a model that might take root in many school systems, died when funding for the original demonstration ran out.

Educational Laboratory Theatre Evaluated.—Finally, a look at the most heavily funded AHP project in any category, the Educational Laboratory Theatre (ELT), one of relatively few curriculum-development projects in theater. The brainchild of many parents—Kathryn Bloom and Jack Morrison at AHP, Roger Stevens and Charles Mark at the National Council on the Arts—the ELT project took off in 1966 with a research grant to Wade Robinson, head of CEMREL, went into action the end of that year, and ended *qua* project in 1970.

Costing more than $6.4 million over 4 years, this was the single biggest federally funded arts-in-education project in American history (exceeded only by the current Artists-in-Schools Program, a long-term, far more diffuse, and much different kind of enterprise). The project received funds from three sources: $2.8 million under title III of ESEA, $1.4 million from the National Endowment for the Arts, and more than $2 million from the AHP under title IV, including $700,000 to CEMREL for evaluation. The lab theater regularly exposed all the high school students and many of their teachers to live theater in three major metropolitan areas—Los Angeles, New Orleans, and Providence (which in effect meant Rhode Island). In the first two cities, new repertory companies were established expressly for ELT; in Providence, the infusion of new funding helped the highly regarded Trinity Square Repertory Company to enhance its resources to meet the new educational challenge.

Was all this money well spent? Did ELT work? Here is a classic case of the inadequacy, indeed basic untruth, of an unmodified "yes" or "no," "true" or "false" to such questions. Fortunately ELT had a research, or "evaluation," component built in almost from the start; CEMREL continuously monitored the project and, in 1970, issued a detailed report. (The project thus was a rarity among federally funded "research" or other programs. To the layman, the failure to provide for such objective judgments seems strange, especially when—as in the case of title IV grants, e.g.—there was an elaborate system of prejudgments by well-qualified "readers" on the value of the original proposal. The omission, however, is hardly peculiar to the AHP research or funded projects in general. More often than not, the proof of the pudding is established by such criteria as, say, whether the Ph.D. candidate gets his degree, or whether publications based on research become landmarks in their field, or whether applied research pays off, in whatever field, and becomes a useful part of the armamentarium of school, community, institution, clinic, specialist.)

Junius Eddy, with a background in film and theater, came to the AHP primarily because of the lab theatre and worked with it almost from the start. He examined likely school settings all over the country, while Roger Stevens did the same for theater possibilities. In 1970, in his report to the Ford Foundation on Federal programs, Eddy wrote:

> It seems probable that [the CEMREL evaluation] has probed more deeply into the many issues encompassed by such a performance program than anything yet undertaken—and the final report is eagerly awaited therefore. . . . I am not really anticipating anything like a "favorable" assessment of the three projects themselves. It is no secret that all three were plagued with enormous scheduling difficulties, made all kinds of mistakes, had a continuing series of personnel upheavals, and seemed generally to operate from one crisis to another. I believe, however, that we can *learn* something from this program; I hope (and assume), therefore, that the report will spell out in detail what the essential

elements should be if such programs are to work effectively anywhere. . . .[13]

There was no reason to complain about the CEMREL report when it finally came out. It did in one sense render a "favorable" verdict; in others it did not. More important, it fulfilled its mission of seeking deeply for the good and the bad and the reasons for both. Unfortunately, however, the sheer bulk of the report (about 1,000 pages, in 4 volumes) [14] precluded its reaching (as Eddy had hoped) "all the relevant parties to such an enterprise: school administrators, teachers of English and drama, professional theater people, and community arts planners and supporters." This practical obstacle the overall director of the CEMREL report, James Hoetker, at Florida State University, foresaw, and attempted to overcome with a series of briefer monographs in order "to make some selected remarks and recommendations more conveniently available to interested readers." It is unlikely, however, that even these merciful digests have reached their due readership.

To say without qualification that ELT ended in 1970 as Federal funding stopped would not be accurate. In Los Angeles, the theater which ELT helped to establish—a component of the Inner City Cultural Center—has racked up a high standing for its repertory productions and its work with young people, and it continues apace despite the financing hazards endemic to such community endeavors. It continues, however, on its own social-action terms, and without any formal link with the Los Angeles school system. In New Orleans, to quote from the CEMREL report, "the only tangible remnant of the Project in the . . . schools is a new Office of Cultural Resources for the New Orleans Public School System." Under the enterprising supervision of Shirley Trusty Corey the office has begun to lay the foundation for a comprehensive arts-in-education program in the district's public schools. But the Repertory Theater after many eleventh-hour rescues is no more. The happiest postscript is datelined Rhode Island. The theater experiment that the State calls Project Discovery continues, though much reduced.

Even if no identifiable trace of the ELT project itself remained, the expenditure of all those millions would be justified, it could be argued, *if* all the people interested in comparable ventures gleaned some of the rich lessons the well-researched project provided. It would seem to be a prime instance of the enlightenment to be derived from the flaws and failures of a given model quite as much as its accomplishments. Its application is by no means limited to the realm of theater. The box on page 63, which presents a severely

Educational Laboratory Theatre Project-A Digest of CEMREL's Recommendations*

1. The idea of lending support to regional theatres by way of giving them an educational function is a sound and ingenious one, which can if properly handled both improve the climate of the arts and help to revitalize the schools.

2. The word "Laboratory" in the title of the ELT project was a misnomer, and there was no consistent emphasis upon experimentation either in the theatres or the schools. Future projects should strive to [find] new ways to involve students and educators actively in drama and actors and theatre artists actively in education.

3. Future theatre programs should not be tied to the English curriculum, and perhaps not to the curriculum at all.

4. Future programs should not be rushed into. Adequate time should be allowed for planning all aspects of the programs and for involving local people in the planning process.

5. Funding should be guaranteed to the programs, for at least a three-year period, but preferably longer. Perhaps the amount of funding should be gradually reduced each year, as an incentive to promote the programs locally.

6. The schools should be required gradually to begin to assume support of some of the educational services offered by the theatres. The theatres should similarly be required to show progress toward developing community support.

63

7. The contracts governing the school-theatre programs should be as open-ended and flexible as it is legally possible to make them.

8. It should be clearly understood by the school officials that the schools will have no power to review, censor, or revise any decision made by the artistic director or to select or suggest plays. On the other hand, the schools should have considerable involvement in planning and carrying out the educational aspects of the programs.

9. All school-theatre programs should have research components. The emphasis should be less upon a conventional evaluation of the programs than on audience development, on basic investigation of the educational processes in the arts, and on problem-centered research studies designed specifically to improve the programs themselves.

10. There should be a single person appointed by the schools to serve as coordinator of the educational aspects of each program.

Educational Laboratory Theatre Project-A Digest of CEMREL's Recommendations* (Cont.)

11. If the theatre company taking part in a program is not already established, it must either be given several years to establish its own identity or it must be well enough subsidized that it can play different seasons simultaneously to student and adult audiences.

12. The theatre artists must be involved intimately and regularly with educational personnel and with students. Similarly, educators must become personally involved with the theatre artists and their work.

13. The artistic director of the theatre company is the most important person in a school theatre project. He must be carefully chosen [and] he should be given the time to learn about the schools while they are learning about the theatre.

14. The company should include talented and competent people to whom much of the management of the theatre's educational work can be delegated. These people should probably be young, with directional ambitions, and with the desire to work with young people.

15. [It] is essential that the accommodations necessary to permit a school-theatre program to operate in an urban setting be worked out to the full satisfaction of all parties before a program is initiated. 63a

16. In a large urban area, there must be a proportionality between the program and its clientele. This means either that there must be several theatre companies or that only a fraction of the schools in a system will participate.

17. Emphasis should be put on communication directly from the theatre company to students and their parents.

18. Experimentation should constantly be carried out on ways to get students to the theatre or to theatre-sponsored activities outside of school hours.

19. It is unrealistic, to judge from the experience of the ELT Project, to expect a newly established company and a school-theatre collaboration to become so firmly established in three years as to be self-supporting.

*For full recommendations, see ELT report, Volume 1, Reactions and Assessments, pp. 446-449.

abbreviated version of the CEMREL recommendations, conveys some flavor of the project and its evaluation. And here, to help point the reader toward the full report, are excerpts from Hoetker's summary words on the lab theatre experiment, which are also highly pertinent to any general discussion of arts research:

> The original objectives of the sponsors of the Project were to help existing regional theatres and to establish new ones, to introduce masses of students to good professional theatre, and to influence the ways that literature and drama were taught in the high schools. But the originators of the Project were also motivated by the assumption that the theatre experience would somehow change people in desirable ways, that teachers and students would, in ways not easy to specify, be better off for having seen good theatre.
>
> Some of those involved in planning and managing the Project spoke of the theatre experience as one that could "humanize" both people and institutions; or they talked about the vapidity of a life without art in it; or they talked of richness of experience and empathy and insight and appreciation and creativity; or they talked of the sociological imperative to find constructive options to self-destructive uses of our ever-increasing amounts of leisure time.
>
> These people hoped that CEMREL would find ways to demonstrate that changes in these areas indeed came about as a result of the Educational Laboratory Theatre Project.
>
> We have not, of course, been able to do any such thing. With the rest of the human race, lettered and unlettered, we share the inability to operationalize or objectify such elusive and internal phenomena. What scientific understandings of the phenomenon of response to theatre that we were able to gather . . . will inevitably be disappointing to those who hoped, at the beginning of the Project, that a well-endowed research component could, in three years or so, get us further along the road to understanding the mysteries of aesthetic response than Aristotle and Hume and Kant and Croce have been able to do.
>
> . . .For most people, the effects of an artistic experience, or a series of them, remain, as it were, a form of potential energy only, and have their effects far in the future. . . . It will be the extremely rare case when it is possible to attribute a change in a person to a particular set of aesthetic experiences. What changes do take place, even when they are relatively large ones, can probably be observed only over a long period of time. . . .
>
> It is perfectly acceptable simply to state, as a matter of common experience, that one is better off for having seen really good theatre than for not having seen it. No research effort is necessary to "justify" spending money to send students to first-rate professional theatre, and someone who has to be convinced that theatre is worthwhile, probably cannot be. (As Louis Armstrong is said to have replied to a lady who asked him what jazz was, "If you gotta ask, you ain't never gonna know."). . . .
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> • • •
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> What does need to be emphasized is that though the ELT Project was flawed, as all really new ventures are bound to be, in both its conception and its execution, it was a success. It worked. It has had good effects, and the effects persist. . . . The Project accomplished its two primary goals: it brought live theatre to hundreds of thousands of students who otherwise would never have seen a play, and it gave three theatre companies an opportunity for growth and development they would not otherwise have had. The Project lasted its allotted span in all three sites, despite all sorts of unanticipated hazards, which is itself a testimonial to the basic practicality of the conception.

Chapter 6. Postscript

The foregoing pages have told the story of a unique chapter in Federal support for research in arts education. A selective story, to be sure, with a few dozen of the 200 projects standing as surrogates for the whole in their range of scope and funding, nominal success or failure, and distribution among art forms, research strategies, and objectives.

Little more remains to be added to this particular story. With the completion of these 200 projects funded primarily under title IV of ESEA, an experimental venture ended. The whole scene shifted. The Arts and Humanities Program underwent another series of bureaucratic changes, and took on different kinds of responsibilities. These did not include arts education research, which in diminished form has become the responsibility of another agency within the U.S. Department of Health, Education, and Welfare.

In truth, however, this account has been not only selective but inconclusive as well, as befits any assessment of research, especially such recent research in so amorphous a field as arts education. Occasionally there was a tangible outcome to record, some evidence that certain findings had been proved out and put to practical application. But often these were research undertakings with quite delimited goals. Other projects probing more profound or comprehensive answers may not make their practical effects known for years to come, if then. Still others made their effects tangentially, as catalysts or pump-primers.

So in a larger sense the story is open-ended: "One will see." But in the narrower sense, this particular chapter of federally sponsored research in arts education ended. In 1970 research went one way, the AHP another. The research in arts education that still has Federal funding proceeds outside the aegis of the Office of Education and its arts and humanities component. On the other hand, those arts-in-education projects wherein the Office of Education has since 1970 played a part have had little or nothing to do with research. The twain parted.

After 1970, the AHP undertook no new research projects, applying its curtailed funds to those projects not yet completed. And during the years that followed, a battery of changes—some primarily bureaucratic, others broadly social and political—overtook the arts presence within the Federal Government.

In 1969 and 1970 the Arts and Humanities Program operated with a sharply reduced staff. At the behest of the Bureau of the Budget, the AHP over this period transferred $2 million—a substantial slice of all new research funds—to the fledgling National Endowments for the Arts and the Humanities. Meantime, as the national administration changed and educational priorities shifted, the U.S. Office of Education underwent various reorganizations under the successors to Commissioner Harold Howe II. No longer was there the high-level support for the arts in education that had marked the Kennedy years and had fostered the wide-ranging AHP initiatives of the 1960's. To a degree, the action had moved out—to the States and communities, to greater Federal

concern for the arts outside of educational institutions.

The Federal posture toward educational research changed, too, engendering a whole new set of governmental mechanisms. In 1970, the Bureau of Research, the AHP's old berth, was replaced by the National Center for Educational Research and Development. In 1972, as scheduled, the Center was succeeded by the National Institute of Education (NIE), an agency within HEW but independent of the Office of Education. All the research-and-development projects sponsored by the Center and its subdivisions, including the AHP, were transferred to the NIE. Under none of these dispensations has research in arts education ever regained the power, prestige, and funding of 1965–1970.

Such educational research as the Federal Government supports is now concentrated in the National Institute of Education. For various reasons, including delay in appointing key committees and staff, the NIE took much longer to get off the ground than had been expected, and has yet to make its mark as an agency powerful and effective beyond its precursors. The NIE spent its $70 million budget for fiscal 1976 on these "research efforts, organized into five 'Problem' areas": dissemination of R. & D. results; basic skills; finance, productivity, and management; education and work; and education equity.

Insofar as the arts have any presence at the NIE they are embodied in Martin Engel—once humanities specialist at the AHP—who serves as Advisor to the Institute for Arts and Humanities. Only a few of the NIE's current grants go to support in whole or in part research in the arts. The biggest (about $1 million a year for the past 5 years) is to CEMREL for its Aesthetic Education Program; others help fund Project Zero and curriculum development in music and art at the Southwest Regional Education Laboratory. In general, Engel corroborates the widespread impression that the arts rate low in the NIE's hierarchy of priorities; they are included, he says, under basic skills. Here, however, if one judges by the NIE's publicity, they find an uneasy home, since the emphasis in this program is the improvement of reading and arithmetic in the elementary grades. In the words of a 1975 letter from the NIE director's office to a prominent arts educator: "The arts and humanities, while generally recognized as important, must take a subordinate position among our priority research and development needs."

A word on the "Targeted Program in Development and Related Research," which the National Center for Educational Research and Development an-

nounced in 1970 and which presumably guides the NIE's policy today. Several aspects of this program are interesting in the context of the present report. Speaking in general of research and development in education, the Center said:

> The education profession is almost entirely dependent upon the U.S. Office of Education for the support of research and development, except for the limited accomplishments possible through doctoral research, a part of which is itself financed through USOE. Other federal sources, state sources, and private sources are so limited that virtually the entire enterprise is being carried by the USOE research program.[1]

This generalization applies with particular point to that subset of education research that deals with arts education, as do other observations in the Center's statement, notably those dealing with the paucity of funding. The chief message of the statement, however, was to disavow the overall policy identified with the Center's predecessors at USOE—that of "responding to research and development initiatives from universities, schools, and other agencies"—and to come out for the targeted program, which would "concentrate funds in a few areas of high educational significance," and invite proposals keyed to those areas. The four areas then designated were already familiar USOE priorities; namely, reading, early childhood education, vocational education, and school organization and administration.

Actually, the Arts and Humanities Program itself had been a unique example within the Bureau of Research of "targeting" a particular field of study. Moreover, most of the R. & D. supported by the program was also targeted. Though, especially at the start, many grants simply responded to initiatives from the field, eventually many more projects were selected, even "invited," if they were consonant with what the AHP and its advisors construed as the most important national priorities for arts education.

And a related observation: Another new departure, according to the Center's 1970 policy statement, was to adopt a "development and related research" strategy, based on experience showing that "the most direct way to relate research to practice is to begin with development." The Center credits this insight to its experience with the Research and Development Centers and the Regional Educational Laboratories. It could also have credited the AHP, which rather consistently put the development cart ahead of the research horse.

Meantime the curtailed Arts and Humanities Program was further diminished. In 1974 the program *qua* program was "deactivated," after having been anchored in successive berths within OE. In 1975 it became the Arts and Humanities Staff, primarily serving the administrative needs of OE itself. The arts presence within the Federal education establishment became, in effect, embodied in Harold Arberg (the AHP's first professional staff member and its eventual director), whose staff reports directly to the Commissioner of Education and who retains his role as Special Advisor on the Arts and the Humanities.

The AHP Director acts as liaison between the Office of Education and other Federal bodies concerned or potentially concerned with the arts in education, and helps direct any available funds to projects in this field. Since 1970 "available" OE funds administered by the AHP—in these instances substantial—have been directed to IMPACT, an interdisciplinary 2-year program that set up pilot arts-based curriculums in five diverse school systems: the Artists-in-Schools Program; the Arts Education Program mandated by the Education Amendments of 1974; and the Alliance for Arts Education, a joint program of the Office of Education and the John F. Kennedy Center for the Performing Arts, which helps State and local education agencies strengthen school arts programs and also runs programs at the center. The National Committee/

Arts for the Handicapped is also part of the Arts Education Program.

In none of these programs, however, nor any of the smaller ones supported since 1970, has there been a major focus on research or development. Some of the projects, to be sure, include a minor research or evaluation "component," as do other recent projects under nongovernmental auspices. And there continues to be what Harlan Hoffa calls "a persistent trickle of research projects which are supported by foundations and by university research agencies."

Hoffa made this observation in a paper prepared for a June 1976 conference on arts and aesthetic education in Aspen, Colo., funded by the NIE and cosponsored by CEMREL and the Aspen Institute for Humanistic Studies. After acknowledging the vitality of various arts-in-education programs across the Nation, Hoffa goes on to deplore the drying up of Federal support for research in arts education. "No national program . . . now exists to enable educators in the visual, performing, or literary arts to identify significant researchable issues, to conduct a program for their resolution, to marshall the necessary resources and to get about the business of improving arts education." [2]

Another plea for research was voiced at the same conference by David Rockefeller, who chairs the Arts, Education, and Americans Panel of the American Council for the Arts in Education. Rockefeller stressed the need for research that would show the connection between arts education and education in such "academic" subjects and skills as reading and mathematics and between arts education and such factors as motivation and self-discipline. "We know there are connections," he said, but "unfortunately research has not backed us up as much as it could." And he went on to discuss the need for solid research on a number of critical questions including the role of the arts in helping autistic children and others handicapped physically or socially, the nature of aesthetic perception, and the potentially creative uses of nonprint media in education.

And so it goes—voices raised in one or another national forum pleading for more and better research in the arts and arts education. Will the American Research Institute for the Arts, recently established in Bloomington, at Indiana University, get the support it needs? Will the Congress ever give more than token support to the National Institute of Education? Perhaps the Congress, and other potential benefactors, are waiting for the "NIE to show us we are getting a bang for the bucks we are spending for educational

research," as a Senate staff member put it early in 1976.

There is precious little to indicate as of this writing that Washington will soon or ever mount a concentrated program of research in arts education to match, much less surpass, the Arts and Humanities Program of the sixties. Nor does any such effort seem likely from such other funding sources as private foundations or corporate donors. Yet the questions persist. Initiates of the field, including certainly readers of this report, will get a sense of déjà vu from the questions posed, for instance, by Mr. Rockefeller.

If, therefore, in the best of all possible worlds there should be a healthy spurt in the quantity and, more important, the quality of arts-education research, the AHP record distilled in the foregoing pages can provide clues as to what works and what doesn't, whe promising directions lie, what cul-d sacs to skirt. Attention to this clos chapter of Federal support could, the least, eliminate or reduce pere nial efforts to beat the dead horses research and to repeat history. At be it could form a useful springboard t ward real advance in plumbing th mysterious power of the arts in huma development.

Notes

Chapter 1: Research in Arts Education Comes of Age

1. August Heckscher, *The Arts and the National Government,* Report to the President, 88th Congress, 1st Session, Senate Document No. 28 (Washington, D.C.: Government Printing Office, May 28, 1963).
2. *Innovation and Experiment in Education,* a progress report of the Panel on Educational Research and Development, President's Science Advisory Committee (Washington, D.C.: Government Printing Office, March 1974).
3. Some information in this paragraph is from *A Review of Federal Programs Supporting the Arts in Education,* a report to the Ford Foundation by Junius Eddy, May 1970.
4. *Ibid.*

Chapter 2: The Arts and Humanities Program in Action

1. Quoted material not otherwise attributed in the text or "Notes" is drawn (as the context will make clear) from researchers' reports or proposals to the AHP, from interviews with researchers, or their letters.
2. Marylou Kuhn, "Editorial," in *Studies in Art Education,* Fall 1973, p. 3.
3. *Arts and Humanities Program: Reports on Research Projects,* U.S. Department of Health, Education, and Welfare, Office of Education, 1971.
4. "Arts and Humanities Program, Bureau of Research," U.S. Department of Health, Education, and Welfare, Office of Education, Sept. 22, 1966 (mimeo.), p. 2.

Chapter 3: "Crossing One Mystery With Another . . ."

1. Rudolf Arnheim, *Art and Visual Perception* (Berkeley and Los Angeles: University of California Press, 1954).
2. Rudolph Arnheim, *Visual Thinking* (Berkeley and Los Angeles: University of California Press, 1969).
3. *Ibid.*, p. 3.
4. Hilda Present Lewis, a review of *Mind and Context in the Art of Drawing* by Kenneth R. Beittel, in *Studies in Art Education,* Winter 1973, p. 72.
5. Kenneth R. Beittel, *Mind and Context in the Art of Drawing* (New York: Holt, Rinehart and Winston, Inc., 1972).
6. Kenneth R. Beittel, "An Alternate Path for Inquiry into Art," *Art Education,* January 1971, p. 33.
7. Kenneth R. Beittel, *Alternatives for Art Education Research* (Dubuque, Iowa: William C. Brown Co., 1973).
8. Sidney J. Parnes and Eugene A. Brunelle, "The Literature of Creativity: Part I," in *Journal of Creative Behavior,* Winter 1967, p. 52.
9. Robert G. Petzold, "Auditory Perception by Children," in *Journal of Research in Music Education,* Spring 1969, p. 87.
10. Marilyn Pflederer Zimmerman, "Percept and Concept: Implications of Piaget," in *Music Educators Journal,* February 1970, p. 49.
11. *Ibid.*, p. 147
12. From "Harvard Project Zero." Staff paper undated (mimeo.).

Chapter 4: The "D" in R. & D.

1. Raymond E. Callahan, *Education and the Cult of Efficiency* (Chicago: University of Chicago Press, 1962).
2. "Arts and Humanities Program, Bureau of Research," U.S. Department of Health, Education, and Welfare, Office of Education, Sept. 22, 1966 (mimeo.), pp. 2–3.
3. Bartlett H. Hayes, Jr., "A Study of the Relation of Museum Art Exhibitions to Education," in *Museums and Education,* Eric Larrabee, ed., pp. 49–75 (Washington, D.C.: Smithsonian Institution Press, 1968).
4. *Schools and Symphony Orchestras,* U.S. Department of Health, Education, and Welfare, Office of Education (Washington, D.C.: Government Printing Office, 1971).
5. Harlan Hoffa, *An Analysis of Recent Research Conferences in Art Education,* U.S. Department of Health, Education, and Welfare, Office of Education, Bureau of Research, December 1970.
6. "Arts and Humanities Program," *op. cit.*, p. 3.
7. Claude V. Palisca, *Music in Our Schools: A Search for Improvement,* U.S. Department of Health, Education, and Welfare, Office of

Education (Washington, D.C.: Government Printing Office, 1964).

8. "Arts and Humanities Program," *op. cit.*, p. 3.
9. Harlan Hoffa, *op. cit.*, p. 43.
10. *Ibid.*, pp. 3–4.
11. "Arts and Humanities Program," *op. cit.*, p. 3.
12. "Documentary Report of the Tanglewood Symposium" (Washington, D.C.: Music Educators National Conference, 1968), p. 89.
13. Judith Murphy and Ronald Gross, *The Arts and the Poor* (Washington, D.C.: Government Printing Office, 1968).
14. Alan S. Downer, "Conference on Theatre Research," *Educational Theatre Journal*, June 1967 (special issue).
15. Eric Larrabee, ed., *Museums and Education* (Washington, D.C.: Smithsonian Institution Press, 1968).
16. *The Fourth 'R': A Commentary on Youth, Education and the Arts* (New York: Associated Councils of the Arts, May 1972).
17. Joseph Farrell, "Culture and Curriculum: A Note on the Gathering of an Idea Whose Time Has Come," *Bulletin No. 25*, Council for Research in Music Education (Urbana: University of Illinois School of Music, Summer 1971).
18. Charles B. Fowler, "The Arts—Force or Frustration?" in *Music Educators Journal*, September 1970, pp. 57–61.
19. Eric Larrabee, *op. cit.*

Chapter 5: The What and How of Education in the Arts

1. "Arts and Humanities Program, Bureau of Research," U.S. Department of Health, Education, and Welfare, Office of Education, Sept. 22, 1966 (mimeo.), p. 9.
2. John Michael, *A Handbook for Art Instructors and Students Based Upon Concepts and Behaviors* (New York: Vantage Press, 1970).
3. William H. Huff (text) and Tomas Gonda (design), "Symmetry: An Appreciation of Its Presence in Man's Consciousness." Subtitles of the 6 volumes:
   1. *Introduction—On Design*
   2. *The Six Isomorphic Coverage Operations*
   3. *The Seven Homoeometric Coverage Operations*
   4. *Man's Conceptualization of the Universe*
   5. *Man's Observation of the Natural Environment*
   6. *Man's Aesthetic Response*
4. Barbara A. Sanderson and Daniel W. Kratochvil, *Materials and Activities for Teachers and Children—The Match Program Developed by the Children's Museum, Boston, Massachusetts*, Product Development Report No. 15 (Palo Alto, Calif.: American Institutes for Research, January 1972).
5. *Juilliard Repertory Library* (Cincinnati, Ohio: Canyon Press, Inc., 1971).
6. Irving Lowens, "Music: Juilliard Repertory Project and the Schools," *Washington Sunday Star*, May 30, 1971.
7. Charles Leonhard and Richard J. Colwell, "Research in Music Education," discussion paper for the Arts and Aesthetics Conference cosponsored by CEMREL, Inc., and the Aspen Institute for Humanistic Studies, Aspen, Colo., June 1976.
8. Bennett Reimer, *Silver Burdette Music, 1974* (Morristown, N.J.: Silver Burdette Company, 1974).
9. A. Oren Gould, *Teaching Children To Sing* (Dubuque, Iowa: William C. Brown Co., 1972).
10. Ronald B. Thomas, *MMCP Synthesis* (available through Media Materials, Inc., P.O. Box 533, Bardonia, N.Y. 10954).
11. Harold Arberg, "Music in the U.S.O.E.," in *ASCAP Today*, August 1970, p. 22.
12. Leonhard and Colwell, *op. cit.*, p. 5.
13. Junius Eddy, *A Review of Federal Programs Supporting the Arts in Education* (a report to the Ford Foundation), May 1970.
14. "Final Report, Educational Laboratory Theatre Project, 1966–1970." Volume 1, "Reactions and Assessments"; Volume 2, "Studies"; Volume 3, "The Coordinator's Report on the ELT Project in Los Angeles"; Volume 4, "Professional Theatres and the Schools" (St. Louis: CEMREL, Inc., 1970).

Chapter 6: Postscript

1. "Targeted Program in Development and Related Research of the National Center for Educational Research and Development," U.S. Office of Education, June 1970 (mimeo.), p. 1.
2. Harlan Hoffa, "The History of the Idea," discussion paper for the Arts and Aesthetics Conference cosponsored by CEMREL, Inc., and the Aspen Institute for Humanistic Studies, Aspen, Colo., June 1976, p. 14.

Appendix

THE AHP'S PROJECTS LISTED ACCORDING TO ART FORM*

ED Number	Final Report	Investigator and Institution
	Aesthetic Education	
ED 018 819	Aesthetic Education Program at the Ohio State University, Report on the Planning Phase, 1967	Manuel Barkan, CEMREL, Inc., St. Ann, Mo.
ED 048 315 ED 048 316	An Approach to Aesthetic Education, September 1970 (2 volumes)	Richard Colwell, University of Illinois (Urbana)
ED 071 989	Basic Abilities Required for Understanding and Creation in the Arts, September 1972	Nelson Goodman, Harvard University, Cambridge, Mass.
ED 111 751	Basic Research in Esthetic Education, August 1973	Frank Barron, Institute for Personality Assessment and Research, Berkeley, Calif.
	Architecture Education	
ED 027 338	Preparatory Study Toward the Improvement of Education in Collegiate Schools of Architecture, December 1968	Burnham Kelly, Cornell University, Ithaca, N.Y.
	Art Education	
ED 002 900	A Comparison of Especially Designed Art Activities With Traditional Art Activities as Used With Intellectually Handicapped Children and Youth, 1961	Jean Hebeler, University of Maryland (College Park)
ED 002 819	A Study of Esthetic Judgment, 1962	Irvin L. Child, Yale University, New Haven, Conn.
ED 003 069	Question Types, Patterns, and Sequences Used by Art Teachers in the Classroom, 1964	Robert D. Clements, Pennsylvania State University (University Park)
ED 003 377	Creative Thinking in Art Students: An Exploratory Study, 1964	Jacob W. Getzels, University of Chicago
ED 003 423	Conference To Identify Broadened Roles for College and Secondary School Industrial Arts Programs in Appalachia and To Plan Pilot Educational Projects, 1964	John D. Rowlett, Eastern Kentucky State College (Richmond)

*This listing includes the projects in "Arts and Humanities Program: Reports on Research Projects," published by the U.S. Office of Education in 1971. The authors revised some classifications in the interest of clarity, such as putting projects dealing with several arts forms in a new heading "Arts Education" and including most museum projects under "Art Education." Reports with *ED* numbers may be ordered from the ERIC Document Reproduction Service (EDRS), P.O. Box 190, Arlington, Va. 22210.

The AHP's Projects Listed According to Art Form (continued)

ED Number	Final Report	Investigator and Institution
	Art Education (continued)	
ED 003 438	Preparatory Study for a High School Curriculum in the Fine Arts for Able Students, 1964	Norman L. Rice, Carnegie Institute of Technology, Pittsburgh, Pa.
ED 003 483	Development of Sensitivity to Esthetic Values, 1964	Irvin L. Child, Yale University, New Haven, Conn.
ED 016 900	Effect of Self-Reflective Training in Art on the Capacity for Creative Action, 1964	Kenneth R. Beittel, Pennsylvania State University (University Park)
ED 054 395	Student and Teacher Interactions During Evaluative Dialogues in Art, 1964	Layman H. Jones, Jr., Pennsylvania State University (University Park)
ED 002 975	Seminar on Elementary and Secondary School Education in the Visual Arts, 1965	Howard Conant, New York University (New York City)
ED 003 078	Development and Validation of a Descriptive Scale for Measurement of Art Products, 1965	Mary J. Rouse, Indiana University (Bloomington)
ED 003 079	Creative Thinking in Art Students: The Process of Discovery, 1965	Jacob W. Getzels, University of Chicago (Ill.)
ED 003 451	Effects of Two Programs and Two Methods of Teaching Upon the Quality of Art Products of Adolescents, 1965	Leon Frankston, Pennsylvania State University (University Park)
ED 010 000	A Seminar in Art Education for Research and Curriculum Development, 1966	Edward L. Mattil, Pennsylvania State University (University Park)
ED 010 090	The Relationship of Certain Prediction and Self-Evaluation Discrepancies to Art Performance and Art Judgment, 1966	Theodore F. Harvey, Jr., Kent State University (Ohio)
	A High School Curriculum in the Fine Arts for Able Students, 1966	Norman L. Rice and Orville M. Winsand, Carnegie Institute of Technology, Pittsburgh, Pa.
ED 010 554	A Pilot Study of Art Education for the Economically and Socially Deprived Child, 1966	Doris L. Barclay, California State College at Los Angeles
ED 013 780	The Colorado College Conference on Advanced Placement in Art, 1966	Bernard Arnest, Colorado College (Colorado Springs)
ED 010 084	A Pilot Study of Art Facilities at Six Colleges and Universities, March 1966	E. M. Benson, Pratt Institute, Brooklyn, N.Y.
ED 010 588	Planning Tests To Measure Outcomes of the Research Program, Education Through Vision, May 1966	Donald A. Trismen, Educational Testing Service, Princeton, N.J.
ED 010 275	Uses of Newer Media in Art Education, August 1966	Vincent Lanier, National Art Education Association, Washington, D.C.

The AHP's Projects Listed According to Art Form (continued)

ED Number	Final Report	Investigator and Institution
	Art Education (continued)	
ED 010 417	A Comparative Study of General Art Offerings in University of Wisconsin Extension Centers, State Universities, and Vocational Schools, August 1966	William J. Leffin, University of Wisconsin (Madison)
ED 014 814	Museums and Education, August 1966	Charles Blitzer, Smithsonian Institution, Washington, D.C.
ED 010 416	A Survey of Current Teaching Approaches to Image Making in the Art Schools of Britain, October 1966	Walter M. Askin, California State College at Los Angeles
ED 011 063	Improving the Teaching of Art Appreciation in the Secondary School, November 1966	David W. Ecker, Ohio State University (Columbus)
ED 010 443	The Museum and the Art Teacher, December 1966	Margaret Kiley, George Washington University, Washington, D.C.
ED 010 555	Artists' Ideas About Art and Their Use in Education, December 1966	John A. Michael, Miami University, Oxford, Ohio
ED 012 804	Selected Psychological Concepts as Applied To the Teaching of Drawing, December 1966	Kenneth R. Beittel, Pennsylvania State University (University Park)
ED 010 415	Testing for Creative Traits of College Students, 1967	Ruby Claire Ball, Southern Connecticut State College (New Haven)
ED 010 426	A Survey of Research Needs of the Visual Arts Departments of Small Liberal Arts Colleges in Ohio and the Midwest, January 1967	James W. Grimes, Denison University, Granville, Ohio
ED 011 051	The Effectiveness of Three Motivational Methods in an Art Program in the Elementary Grades, February 1967	Robert D. Clements, Ball State University, Muncie, Ind.
ED 013 368	Criteria for Evaluation of Children's Artistic Creativity, February 1967	Paul Mussen and Hilda Lewis, University of California (Berkeley)
ED 016 847	Uses of Symmetry in Design Education, March 1967	William S. Huff, Carnegie Institute of Technology, Pittsburgh, Pa.
ED 017 045	Conference on Curriculum and Instruction Development in Art Education: A Project Report, March 1967	Alice Baumgarner, National Art Education Association, Washington, D.C.
ED 055 092	Legal Certification Requirements To Teach and Supervise Art in the Public Schools of the Fifty States and the District of Columbia, March 1967	Horace F. Heilman, Kutztown State College (Pa.)
	Programing Visual Behavior, March 1967	Aatis E. Lillstrom, Columbia University, New York, N.Y.
ED 017 063	Dissemination of Some Results of the Seminar on Research and Curriculum Development in Art Education, May 1967	Edward Mattil, Pennsylvania State University (University Park)

The AHP's Projects Listed According to Art Form (continued)

ED Number	Final Report	Investigator and Institution
	Art Education (continued)	
ED 012 380	Bases of School Children's Esthetic Judgment and Esthetic Preference, June 1967	Irvin L. Child, Yale University, New Haven, Conn.
ED 016 519	Increasing the Awareness of Art Ideas of Culturally Deprived Kindergarten Children Through Experiences With Ceramics, June 1967	Nancy J. Douglas and Julia B. Schwartz, Florida State University (Tallahassee)
ED 013 859	Art Program in Negro Colleges, August 1967	Mary J. Rouse, Indiana University (Bloomington)
ED 020 937	A Developmental Conference To Establish Guidelines for Pilot Programs for Teaching the Concepts of Art Appreciation Which Are Basic in the General Education of All Public School Students, August 1967	Jeanne E. Orr, Ohio State University (Columbus)
ED 015 783	A Comparison of the Developmental Drawing Characteristics of Culturally Advantaged and Culturally Disadvantaged Children, September 1967	Elliot W. Eisner, Stanford University (Calif.)
ED 017 044	Education Through Vision, September 1967	Bartlett H. Hayes, Harvard University, Cambridge, Mass.
ED 023 348	The Preparation of a Library of Taped Interviews With American Artists, on Problems of Professional Concern, as Resource Material for Faculty and Students of Art in Higher Education, September 1967	Karl Fortess, Boston University (Mass.)
ED 017 052	New Directions in Art Education: Report of the International Symposium, November 1967	Charles M. Dorn, National Art Education Association, Washington, D.C.
ED 021 870	The Relation of Quality of Art Work to Two Socio-Economic Variables, Two Motivational Variables, and Two Budget Variables, November 1967	Pete J. Carr and Robert D. Clements, Ball State University, Muncie, Ind.
ED 023 354	The Relationship of Motivation and Evaluation to the Process and Product in the Art Work of College Students, December 1967	Rudy S. Ackerman, Moravian College, Bethlehem, Pa.
ED 026 403	A Study of the Relation of Museum Art Exhibitions to Education, December 1967	Bartlett H. Hayes, Jr., Harvard University, Cambridge, Mass.
ED 048 745	The Application of Programmed Learning and Teaching Systems Procedures for Instruction in a Museum Environment, December 1967	C. G. Screven, University of Wisconsin (Milwaukee)
ED 024 181	A Comparison of Group Versus Individual Production of Non-Verbal Artistic Creativity, January 1968	Stephen C. Zambito, Eastern Michigan University (Ypsilanti)
ED 026 025	Proceedings of a Workshop To Study Eleven Problems Common to Independent Schools of Art, January 1968	Albert Bush-Brown, Rhode Island School of Design (Providence)

The AHP's Projects Listed According to Art Form (continued)

ED Number	Final Report	Investigator and Institution
	Art Education (continued)	
ED 023 355	A College-Level Art Curriculum in Glass, February 1968	Robert Willson, University of Miami, Coral Gables, Fla.
ED 022 365	Evaluation of the Education Through Vision Curriculum, Phase I, March 1968	Donald A. Trismen, Educational Testing Service, Princeton, N.J.
ED 022 221	Study of Visual Factors in Concept Formation, May 1968	Rudolf Arnheim, Sarah Lawrence College, Bronxville, N.Y.
ED 025 529	An Investigation Into the Character and Expressive Qualities of Early Adolescent Art, October 1968	W. Lambert Brittain, Cornell University, Ithaca, N.Y.
ED 030 707	Developing and Evaluating Art Curricula Specifically Designed for Disadvantaged Youth, March 1969	Ronald H. Silverman, California State College at Los Angeles
ED 043 925	Community Arts Study Program, March 1969	June K. McFee, University of Oregon (Eugene)
ED 013 972	The Role of the Crafts in Education, June 1969	Jean M. Delius and Stanley Czurles, State University College at Buffalo (N.Y.)
ED 033 141	The Museum: A Social Context for Art, June 1969	Dorothy A. Mariner, University of Rochester (New York)
ED 045 685	Seminar for Improving the Effectiveness of Supervisors in Art Education, September 1970	Leslee Bishop, National Art Education Association, Washington, D.C.
ED 047 652	A Cognitive Approach to the Assessment of Esthetic Responses, December 1970	Arthur D. Efland, Ohio State University (Columbus)
ED 054 185	Assessment of Affective Responses Conducive to Esthetic Sensitivity, January 1971	Irvin L. Child, Yale University, New Haven, Conn.
ED 052 219	Identification and Evaluation of Trained and Untrained Observers' Affective Responses to Art Objects, March 1971	George W. Hardiman, University of Illinois (Urbana)
	Arts Education (projects dealing with several art forms)	
ED 003 027	Conference on a Longitudinal Study of Expressive Behavior in the Arts, 1965	Jack Morrison, University of California at Los Angeles
ED 013 367	An Investigation of the Means for Utilizing Academic and Community Resources To Provide Services to Arts Organizations and Through Them to Schools and Colleges, July 1966	Harold Burris-Meyer, Florida Atlantic University (Boca Raton)

The AHP's Projects Listed According to Art Form (continued)

ED Number	Final Report	Investigator and Institution
	Arts Education (continued)	
ED 001 073 ED 024 723	A Seminar on the Role of the Arts in Meeting the Social and Educational Needs of the Disadvantaged, April 1967; see also The Arts and the Poor, by Judith Murphy and Ronald Gross	Hanna T. Rose, Brooklyn Museum (New York)
ED 024 746	Measuring the Contribution of the Arts in the Education of Disadvantaged Children, August 1968	Harold L. Cohen, Institute for Behavioral Research, Silver Spring, Md.
	The CUE Report, 1966	Grace Lacy, State Department of Education, Albany, N.Y.
ED 041 098	The Arts, Education, and the Urban Sub-Culture, September 1969	Don D. Bushnell, Brooks Foundation, Santa Barbara, Calif.
ED 045 631	An Inquiry into the Educational Potential of Non-Verbal Communication, July 1970	Harold Burris-Meyer, Florida Atlantic University (Boca Raton)
ED 045 864	The Arts in Secondary Education, November 1970	George Stoddard, ES '70 Incorporated, San Mateo, Calif.
ED 054 188	The Identification and Selection of Creative Artistic Talent by Means of Biographical Information, January 1971	Robert Ellison, Institute of Behavioral Research, Salt Lake City, Utah
	The Fourth "R," A Commentary on Youth, Education and the Arts, May 1972	Joseph Farrell, Associated Councils of the Arts, New York, N.Y.
	Dance Education	
ED 020 770	An Exploration of the Uses of Rhythmic Movement To Develop Aesthetic Concepts in the Primary Grades, 1966	Betty J. R. Rowen, Teachers College, Columbia University, New York, N.Y.
	The Development of Guidelines for Classifying and Writing Abstracts of Dance Research, 1967	Patricia Rowe, New York University (New York City)
ED 026 024	Dance: A Projection for the Future, 1968	Alma Hawkins, University of California at Los Angeles
ED 027 095	A Pilot Study Integrating Visual Form and Anthropological Content for Teaching Children Ages 6 to 11 About Cultures and Peoples of the World, February 1968	Pearl Primus, New York University (New York City)
ED 024 405	A Collection of Ethnic Dances for Use in Elementary and Secondary Schools, April 1968	Elsie Dunin, University of California at Los Angeles
	A Comprehensive Graded Curriculum in Dance Training for Secondary Schools	Nadia Chilkovsky Nahumck, University of Pennsylvania (Philadelphia)

The AHP's Projects Listed According to Art Form (continued)

ED Number	Final Report	Investigator and Institution
	The Humanities	
ED 001 127	A Standard Sample of Present-Day English for Use With Digital Computers, 1964	Winthrop Nelson Francis, Brown University, Providence, R.I.
ED 002 976	Research and the Development of English Programs in the Junior College, 1965	Jerome W. Archer, Arizona State University (Tempe)
ED 003 026	Planning Conference To Examine the Role of Classical Studies in American Education and To Make Recommendations for Needed Research and Development, 1965	John Francis Latimer, George Washington University, Washington, D.C.
ED 003 468	Development of a Pilot Program in the Humanities for Non-College-Bound Students in the 12th Grade, 1965	John W. Ragle, Vermont State Department of Education (Montpelier)
ED 003 701	Multimedia Visual Aids as Instructional Techniques in College History Survey Courses, 1965	Frederich A. Kremple, Wisconsin State University (Stevens Point)
ED 010 189	Determining Excellence Quotient for Liberal Arts College Libraries, 1966	James T. McDonough, Jr., St. Joseph's College, Philadelphia, Pa.
ED 010 668	Education and the Victorian Mind of England, 1966	Edward W. Ellsworth, Wheelock College, Boston, Mass.
ED 011 055	Educational Research and the Liberal Arts, May 1966	Leiba Brown, Columbia University, New York, N.Y.
ED 011 969	Revising and Re-editing a Guide for Comparative and General Literature, September 1966	Charlton Laird, University of Nevada (Reno)
ED 054 038	Classics and Charity: The English Grammar School in the 18th Century, September 1966	Richard S. Tompson, University of Michigan (Ann Arbor)
ED 010 525	A Computer Analysis of Fictional Prose Style, October 1966	Karl Kroeber, University of Wisconsin (Madison)
ED 016 659	An Analysis of High School Humanities Courses in Florida, 1967	Robert D. Miller, Florida State University (Tallahassee)
ED 019 295	Planning and Creation of an Integrated Two-Year Liberal Arts Curriculum in World Civilizations for University Freshmen and Sophomores, 1967	John Walker Powell and John Knoblock, University of Miami (Fla.)
ED 025 224	A Planned Survey Course in British Commonwealth Literature for American College Students, March 1968	Robert T. Robertson, Virginia Polytechnic Institute (Blacksburg)
ED 035 110	Authoritative Texts of the Published Works of Mark Twain, October 1969	John C. Gerber, University of Iowa (Iowa City)
ED 028 164	Conceptual Frontiers in Speech Communication, 1969	John Dietrich, Speech Association of America, New York, N.Y.

The AHP's Projects Listed According to Art Form (continued)

ED Number	Final Report	Investigator and Institution
	The Humanities (continued)	
ED 060 006	The DARE Project at the End of 1970, November 1970	Frederic G. Cassidy, University of Wisconsin (Madison)
	Preparation of a Complete Edition of the Writings of Herman Melville in Clear Text	Harrison Hayford, Northwestern University, Evanston, Ill.
	Media of Communication	
ED 003 770	The Role and Function of Radio, Television, Film, and the Other New Media in the Permanent Program of the National Culture Center, 1963	Richard B. Hull, Ohio State University (Columbus)
	Film Study in Higher Education, published by the American Council on Education, 1966	David C. Stewart, Dartmouth College, Hanover, N.H.
ED 010 078	Conference on the Use of Printed and Audio-Visual Materials for Instructional Purposes, February 1966	Maurice F. Tauber, Columbia University, New York, N.Y.
ED 036 205	An Investigation into the Practice of Screen Education, September 1969	Anthony W. Hodgkinson, Boston University (Mass.)
EC 061 726	Evaluating the Potential of Films for Self-Image in Minority Group Children, 1971	Robert A. Weisgerber, American Institutes for Research, Palo Alto, Calif.
	Museum Education	
	The Design, Development and Testing of a Response Box, a New Component for Science Museum Exhibits, March 1967	Harvey E. White, University of California (Berkeley)
ED 026 718	Strategies for Determining Exhibit Effectiveness, April 1968	Harris H. Shettel, American Institutes for Research, Pittsburgh, Pa.
ED 033 614 ED 033 615	Materials and Activities for Teachers and Children: A Project To Develop and Evaluate Multi-Media Kits for Elementary Schools, 1968	Frederick H. Kresse, Children's Museum, Boston, Mass.
ED 035 038	The Development of Validated Museum Exhibits, May 1969	Elizabeth H. Nicol, Children's Museum, Boston, Mass.
	Music Education	
ED 002 899	The Perception of Music Symbols in Music Reading by Normal Children and by Children Gifted Musically, June 1959	Robert G. Petzold, University of Wisconsin (Madison)
ED 003 305	Objective Measurement in Instrumental Music Performance, 1964	Kenneth U. Gutsch, University of Southern Mississippi (Hattiesburg)

The AHP's Projects Listed According to Art Form (continued)

ED Number	Final Report	Investigator and Institution
	Music Education (continued)	
ED 003 324	Symbols Used in Music Analysis, 1964	George Thaddeus Jones, Catholic University, Washington, D.C.
ED 003 429	Seminar on Music Education, 1963; see also Music in Our Schools, 1964	Claude V. Palisca, Yale University, New Haven, Conn.
ED 003 611	An Evaluation of Two Methods Using Magnetic Tape Recordings for Programed Instruction in the Elemental Materials of Music, January 1964	Charles L. Spohn, Ohio State University (Columbus)
	Survey of American and British Solo Vocal Literature, 1965	John E. Toms, San Francisco State College (Calif.)
ED 003 083	A Filmed Demonstration of the Teaching of Shinichi Suzuki With American Preschool and Grade School Children and Their Mothers as Subjects, 1965	Paul Rolland, University of Illinois (Urbana)
ED 003 168	National Conference on the Uses of Educational Media in the Teaching of Music, April 1965	Edward Maltzman, Music Educators National Conference, Washington, D.C.
ED 003 232	A Comparison Between Different Stimuli Combined With Two Methods for Providing Knowledge of Results in Music Instruction, October 1965	Charles L. Spohn, Ohio State University (Columbus)
ED 003 395	An Analysis, Evaluation, and Selection of Clinical Uses of Music in Therapy, 1965	E. Thayer Gaston, University of Kansas (Lawrence)
ED 003 450	Pilot Project for Development of a Device To Facilitate Learning of Basic Musical Skills, 1965	Parker LaBach, Kent State University (Ohio)
ED 003 686	A Curriculum Guide of Published Solo Song Cycles, 1965	Wendell D. Buckley, Concordia College, Moorehead, Minn.
ED 010 298	Evaluation and Synthesis of Research Studies Relating to Music Education, 1965	Erwin H. Schneider and Henry L. Cady, Ohio State University (Columbus)
	A Study To Explore New Methods of Identifying and Measuring Musical Talent, 1966	Wendell L. Osborn, University of Texas (Austin)
ED 010 040	The Theory of Expectation Applied to Musical Learning, 1966	Richard Colwell, University of Illinois (Urbana)
ED 010 193	Factors Affecting Pitch Discrimination, 1966	John R. Bergan, University of Kansas (Lawrence)
ED 010 297	Auditory Perception of Musical Sounds by Children in the First Six Grades, 1966	Robert G. Petzold, University of Wisconsin (Madison)
ED 010 412	National Conference To Improve the Effectiveness of State Supervision of Music, January 1966	Roger P. Phelps, New York University (New York City)

The AHP's Projects Listed According to Art Form (continued)

ED Number	Final Report	Investigator and Institution
	Music Education (continued)	
ED 010 413	An Analysis of Student Attitudes Towards Contemporary American Music, 1966	R. Robert Hornyak, University of Cincinnati (Ohio)
ED 017 066	An Evaluation of Adequacy of Graduate Music Offerings at California Colleges and Universities, 1966	Hazel B. Morgan, Claremont Graduate School (Calif.)
ED 030 015	The Development of Content and Materials for a Music Literature Course in the Senior High School, 1966	Neal E. Glenn and Robert Glidden, University of Iowa (Iowa City)
ED 016 391	The Evaluation of Electronic Self-Instruction on Piano Keyboard, August 1966	Victor E. Lund, Oregon State System of Higher Education (Monmouth)
ED 010 300	A Study of New Concepts, Procedures, and Achievements in Music Learning as Developed in Selected Music Education Programs, September 1966	Ronald B. Thomas, Manhattanville College of the Sacred Heart, Purchase, N.Y.
054 189	The Study and Evaluation of Certain Programs Related to Sight-singing and Music Dictation, September 1966	Marvin S. Thostenson, University of Iowa (Iowa City)
ED 010 842	A Study of the Relationship Between the Perception of Musical Processes and the Enjoyment of Music, December 1966	George L. Duerksen, Michigan State University (East Lansing)
ED 018 112	High School Music Theory, 1967	J. Austin Andrews, Eastern Washington State College (Cheney)
ED 020 193	A Study To Explore the Possible Uses of X-Ray Motion Picture Photography for the Improvement of Brass Instrument Teaching, 1967	Lyle C. Merriman, University of Iowa (Iowa City)
ED 055 093	International Seminar on Teacher Education in Music, 1967	Marguerite Hood, University of Michigan (Ann Arbor)
ED 010 504	Self-Instructional Material in Basic Music Theory for Elementary Teachers, January 1967	Genevieve Hargiss, University of Kansas (Lawrence)
ED 014 212	A Comparative Study of Programmed and Traditional Techniques for Teaching Music Reading in the Upper Elementary Schools, January 1967	William Dee Mandle, Western Reserve University, Cleveland, Ohio
ED 020 194	A Survey of Music Education Materials and the Compilation of an Annotated Bibliography, February 1967	Thomas C. Collins, University of Miami, Coral Gables, Fla.
ED 023 340	Aural and Visual Perception of Melody in Tonal and Atonal Musical Environments, February 1967	Robert W. Sherman, Ball State University, Muncie, Ind.
ED 013 973	A Conference on Research in Music Education, May 1967	Henry L. Cady, Ohio State University (Columbus)

The AHP's Projects Listed According to Art Form (continued)

ED Number	Final Report	Investigator and Institution
	Music Education (continued)	
ED 015 532	A Study of the Development of Musicality in the Junior High School and the Contribution of Musical Composition to This Development, July 1967	George H. Kyme, University of California (Berkeley)
ED 017 366	Improving and Extending the Junior High School Orchestra Repertory, August 1967	June Moore, Nebraska State Department of Education (Lincoln)
ED 017 526	Development and Trial in a Junior and Senior High School of a Two-Year Curriculum in General Music, August 1967	Bennett Reimer, Western Reserve University, Cleveland, Ohio
ED 016 517	Development of a Technique for Identifying Elementary School Childrens' Musical Concepts, September 1967	Frances M. Andrews and Ned C. Deihl, Pennsylvania State University (University Park)
ED 016 521	The Juilliard Repertory Project, Kindergarten Through Grade Six, December 1967	Roger Sessions and George Dickey, Juilliard School of Music, New York, N.Y.
ED 021 473	The Effectiveness of the Use of Programmed Analyses of Musical Works on Students' Perception of Form, December 1967	Carl B. Nelson, State University College at Cortland (N.Y.)
ED 026 402	The Development of a Planned Program for Teaching Musicianship in the High School Choral Class, December 1967	Stanley Linton, Wisconsin State University (Oshkosh)
ED 027 609	Development of Computerized Techniques in Music Research With Emphasis on the Thematic Index, 1968	Harry B. Lincoln, State University of New York at Binghamton
ED 028 200	How Children Conceptually Organize Musical Sounds, 1968	Marilyn Pflederer, Northwestern University, Evanston, Ill.
ED 019 292	Diagnosing and Correcting Individual Deficiencies in Learning Music, March 1968	Charles L. Spohn, Ohio State University (Columbus)
ED 022 418	The Development of a One-Year Curriculum in Applied Music Instruction for Potential Composers, Conductors, Performers, and Music Educators, March 1968	Joseph E. Maddy and Waldie A. Anderson, Interlochen Arts Academy, Interlochen, Mich.
ED 020 804	Study To Determine the Feasibility of Adapting the Carl Orff Music Approach to Elementary Schools in America, May 1968	Robert B. Glasgow, Oregon College of Education (Monmouth)
ED 023 344	The Development of Self-Instructional Drill Materials To Facilitate the Growth of Score Reading Skills of Student Conductors, August 1968	Robert G. Sidnell, Michigan State University (East Lansing)
ED 025 530	Developing Specialized Programs for Singing in the Elementary School, August 1968	A. Oren Gould, Western Illinois University (Macomb)
ED 029 500	A Project for the Improvement of Music Education at Elementary, Junior High, Senior High and College Levels Through the Use of Non-Book Instructional Media, August 1968	Thomas Vasil, Lexington Public Schools (Mass.)

The AHP's Projects Listed According to Art Form (continued)

ED Number	Final Report	Investigator and Institution
	Music Education (continued)	
ED 045 688	Musical Ability Utilization Program, April 1969	Joseph Loretan and others, New York City Board of Education
ED 035 100	A Critique of Research Studies in Music Education, May 1969	Richard Colwell, University of Illinois (Urbana)
ED 032 788	The Utilization of Instructional Television in Music Education, June 1969	Thomas H. Carpenter, East Carolina College, Greenville, N.C.
ED 035 314	Development and Evaluation of Computer-Assisted Instruction in Instrumental Music, September 1969	Ned C. Deihl, Pennsylvania State University (University Park)
ED 043 652	An Approach to Musical Understanding for Secondary School Students, 1970	Kenneth A. Wendrich, Yale University, New Haven, Conn.
ED 038 039	Feasibility of Computer-Assisted Elementary Keyboard Music Instruction, March 1970	William Kent, System Development Corporation, Falls Church, Va.
ED 048 318	Pilot Study for the Development of Music Discrimination Tests for Elementary School Children, July 1970	Newell H. Long, Indiana University (Bloomington)
ED 045 865	Manhattanville Music Curriculum Program, August 1970	Ronald B. Thomas, Manhattanville College, Purchase, N.Y.
ED 045 042	Development of Materials for a One-Year Course in African Music for the General Undergraduate Student, September 1970	Vada E. Butcher, Howard University, Washington, D.C.
ED 048 319	An Experimental Program in the Development of Musical Literacy Among Musically Gifted Children in the Upper Elementary Grades With Emphasis on the Potential Impact of Kodály-Inspired Musical Education, October 1970	Alexander L. Ringer, University of Illinois (Urbana)
ED 024 695 ED 025 532	The Organization, Administration and Presentation of Symphony Orchestra Youth Concert Activities for Music Educational Purposes in Selected Cities, January 1968; see also Schools and Symphony Orchestras, 1971	Thomas Hill and Helen Thompson, American University, Washington, D.C.
ED 054 190	Development and Trial of a Two-Year Program of String Instruction, April 1971	Paul Rolland, University of Illinois (Urbana)
ED 065 442	Computer Analysis of the Auditory Characteristics of Musical Performance, 1971	Jack Heller, University of Connecticut (Storrs)
	Critique of Research Studies in Music Education, 1972	Richard Colwell, University of Illinois (Urbana)
ED 077 808	Introducing Children to the Symphony: Experimental Study of Pre-Concert Preparation and Performance Effects, August 1972	Peter Clarke, University of Washington (Seattle)

The AHP's Projects Listed According to Art Form (continued)

ED Number	Final Report	Investigator and Institution
	Theater Education	
ED 003 072	A Pilot Study in New Theatrical Techniques for the Educational Theater, 1965	Jascha Kessler and Henry Goodman, University of California at Los Angeles
ED 054 720	Feasibility Study on Combining a Community Theater With a College Drama Department, December 1965	Earle Gister, Carnegie Institute of Technology, Pittsburgh, Pa.
ED 012 141	Interracial Theater in the United States, 1955 –1965: A Description and Analysis, October 1966	Floyd Gaffney, Carnegie institute of Technology, Pittsburgh, Pa.
ED 054 153	Theatre Arts Materials Research, November 1966	Geraldine Brain Siks, University of Washington (Seattle)
ED 013 972	Relationships Between Educational Theater and Professional Theater, August 1966, Special Issue, *Educational Theatre Journal*, November 1966	Kenneth L. Graham, University of Minnesota (Minneapolis)
ED 010 795	A Collative Report on Architectural Recommendations for Secondary School and Tertiary School Theater Space and Equipment, December 1966	Horace W. Robinson, University of Oregon (Eugene)
ED 014 315	Comprehensive Index to the Merriman Scrapbook Collection of Materials on Pittsburgh and New York Theatre, 1967	Ned A. Bowman, University of Pittsburgh (Pa.)
ED 016 895	An Investigation of Existing Outdoor Drama Techniques and a Determination of Methods To Improve Training, 1967	Mark R. Sumner, University of North Carolina (Chapel Hill)
	Directory of American College Theatre, 1967	Richard G. Ayers, American Educational Theatre Association, Washington, D.C.
ED 020 157	Graphic Sources for the Teaching of Restoration Acting Style, April 1967	Nancy Wandalee Henshaw, University of Pittsburgh (Pa.)
ED 059 207	Conference on Theater Research, special issue, *Educational Theatre Journal*, June 1967	Alan S. Downer, Princeton University (N.J.)
ED 032 654	Description of Community Theaters in the United States, December 1968	John F. Havens, American Educational Theatre Association, Washington, D.C.
ED 045 639 ED 045 640 ED 045 641 ED 045 642	Final Report: Educational Laboratory Theatre Project, 1970; Volume I, Reactions and Assessments; Volume 2, Studies; Volume 3, The Coordinator's Report on the ELT Project in Los Angeles; Volume 4, Professional Theatres and the Schools	Wade M. Robinson, CEMREL, Inc., St. Louis, Mo.
	Final Report: Educational Laboratory Theatre Project, 1970, New Orleans, La.	Carl J. Dolce, Orleans Parish School Board, New Orleans, La.

The AHP's Projects Listed According to Art Form (continued)

ED Number	Final Report	Investigator and Institution
	Theater Education (continued)	
	Final Report: Educational Laboratory Theatre Project, 1970, Providence, R.I.	Charles A. O'Conner, Jr., Public Schools of the City of Providence (R.I.)
ED 024 693	International Conference on Theatre Education and Development, special issue, *Educational Theatre Journal*, August 1968	Jack Morrison, American Educational Theatre Association, Washington, D.C.
ED 045 641	The Coordinator's Report on the ELT Project in Los Angeles, Volume 3 of the Final Report, Educational Laboratory Theatre Project, 1970	Jack P. Crowther, Los Angeles Unified School District (Calif.)
ED 039 254	Assessment of Role Induction and Role Involvement in Creative Drama, April 1970	Paul Kozelka, Teachers College, Columbia University, New York, N.Y.
ED 053 117	A Survey of the Status of Theatre in United States High Schools, November 1970	Joseph Peluso, American Educational Theatre Association, Washington, D.C.

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